

Child Atlas of India



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Community Health Cell
Library and Documentation Unit
BANGALORE

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Published by UNICEF,
Regional Office for South Central Asia,
73 Lodi Estate. New Delhi 110003.

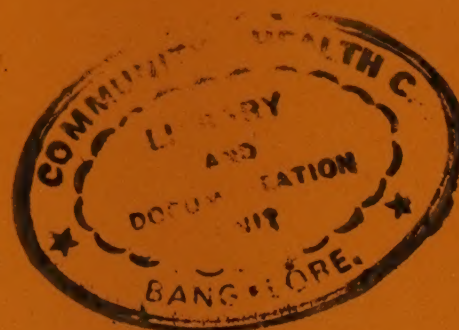


INTRODUCTION

"Child Atlas of India" is one of the documents in the series of UNICEF publications on the situation of children. It complements "Analysis of Situation of Children", which appeared earlier. The Atlas presents up-to-date information, based on secondary sources, on child demography, health, nutrition, education, employment and other related areas. It is hoped that this presentation will help formulate programmes for child development especially in underserved areas.

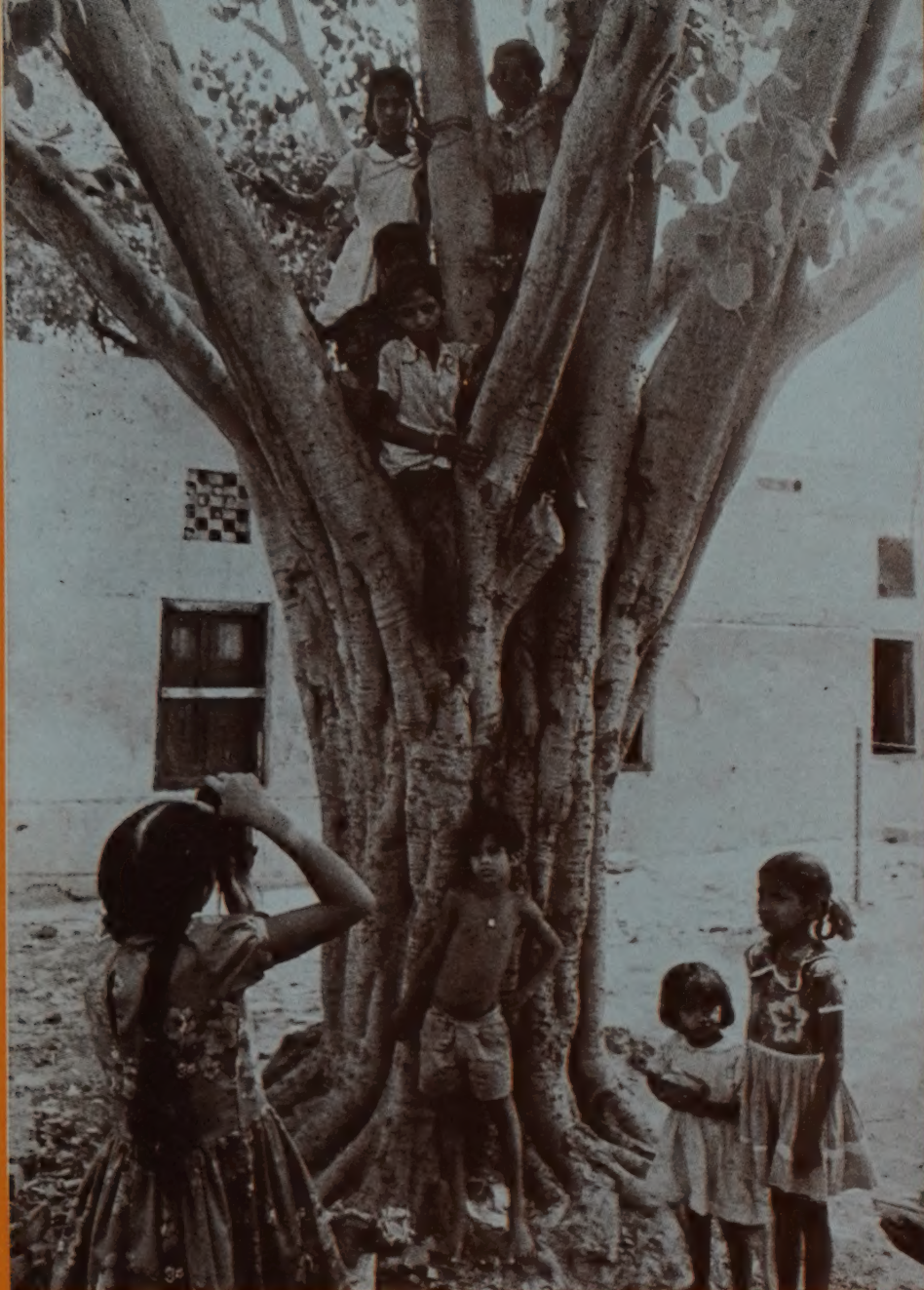
While trends over time have been analysed wherever possible, maximum use has been made of the provisional figures of the 1981 Census of India. Brief interpretative texts accompany the maps, graphs, charts and pictures.

It is hoped that updated future editions of this Atlas could be published based on the full data generated by the 1981 Census and other studies and surveys currently in progress.



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CHILD POPULATION

According to projected estimates for 1981, children upto 14 years of age number 255 million and constitute 38 per cent of the total population. This represents a four per cent decrease since the 1971 Census.

The child population varies considerably among the states. Uttar Pradesh, the most populous state of India, has 41 million children whereas Sikkim has a child population of 92,000. The Union Territory of Lakshadweep with 13,000 children has the smallest child population.

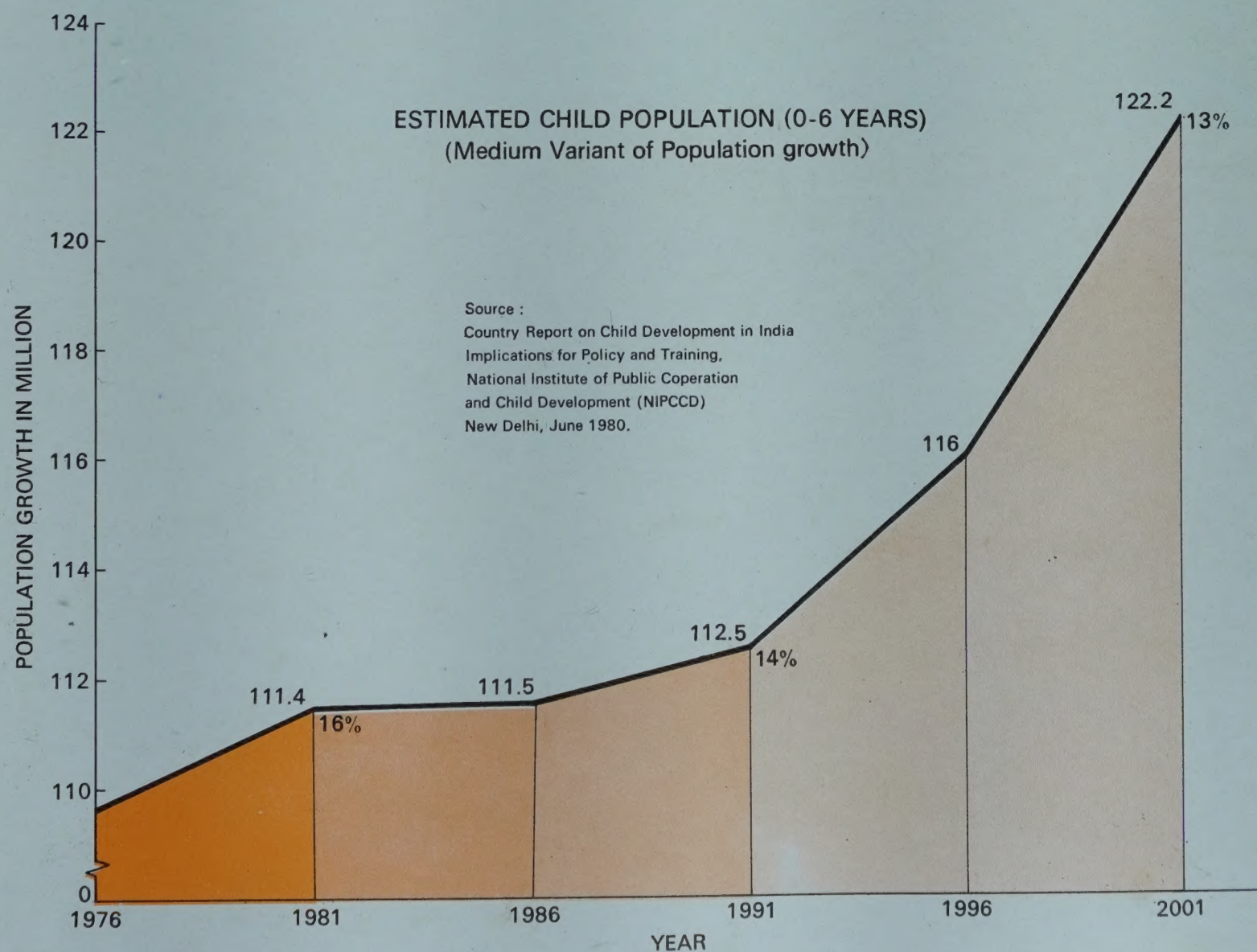




ESTIMATED CHILD POPULATION (0 - 6 years)

The number of pre-school children (0 - 6 years) is estimated to reach 122 million at the close of this century. Population projections are made under varying assumptions regarding the future course of fertility and mortality.

There will be an increment in the absolute number of children in each quinquennium, but their proportion to the country's total population will consistently reduce to 13 per cent under medium variant of future population growth.

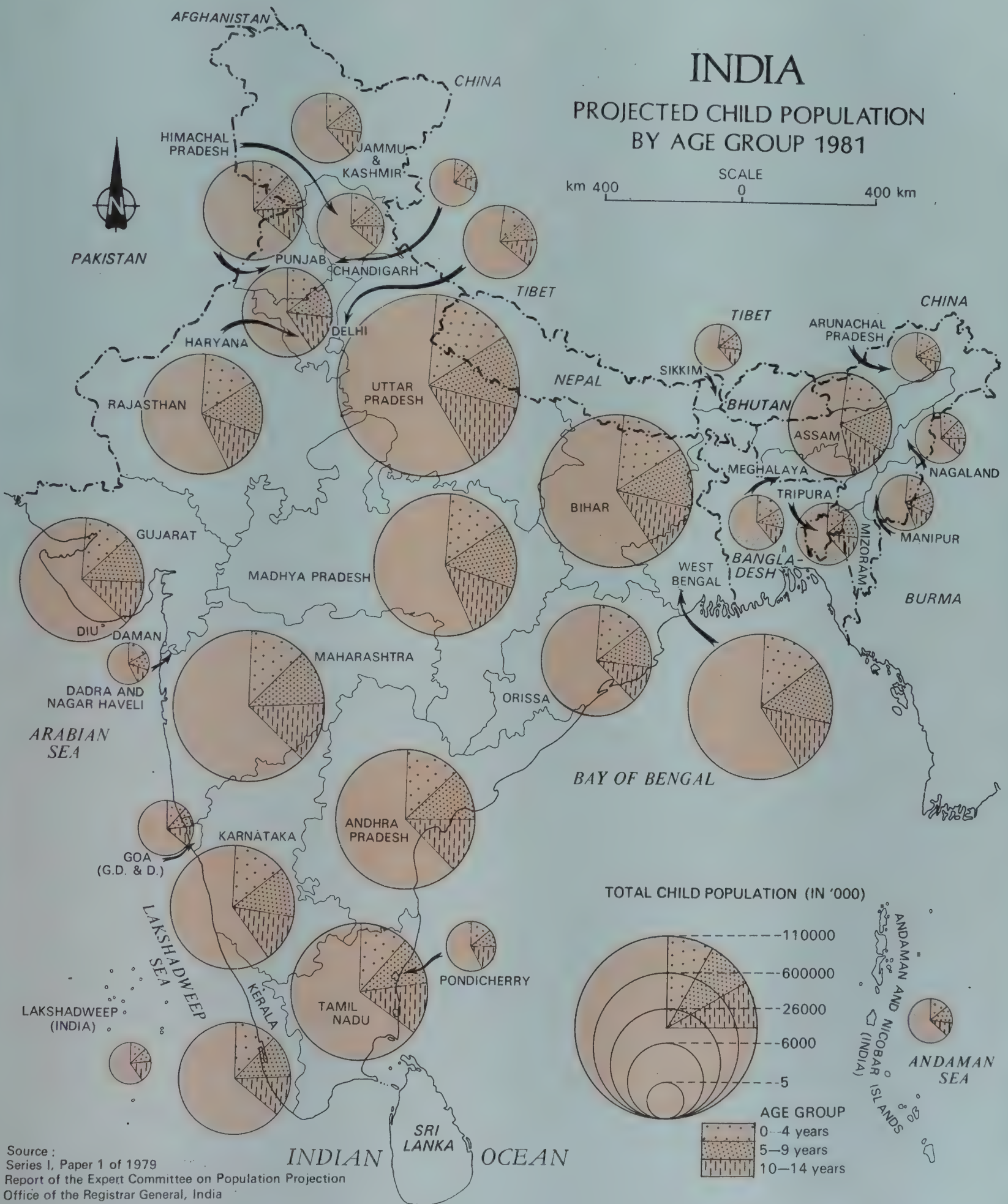




AGE STRUCTURE OF CHILD POPULATION

The map shows the distribution of estimated child population for the year 1981 in the age group 0-4, 5-9, and 10-14 years for all states and union territories. It is based on the projections of the Expert Committee on Population Projection, Demography Division of the Registrar General, India.

The estimated child population for each state and union territory is shown in the pie-diagrams.





DENSITY OF POPULATION 1981

According to 1981 Census, India's population is spread over an area of 3.29 million sq. km. with an overall population density of nearly 221 persons per sq. km.

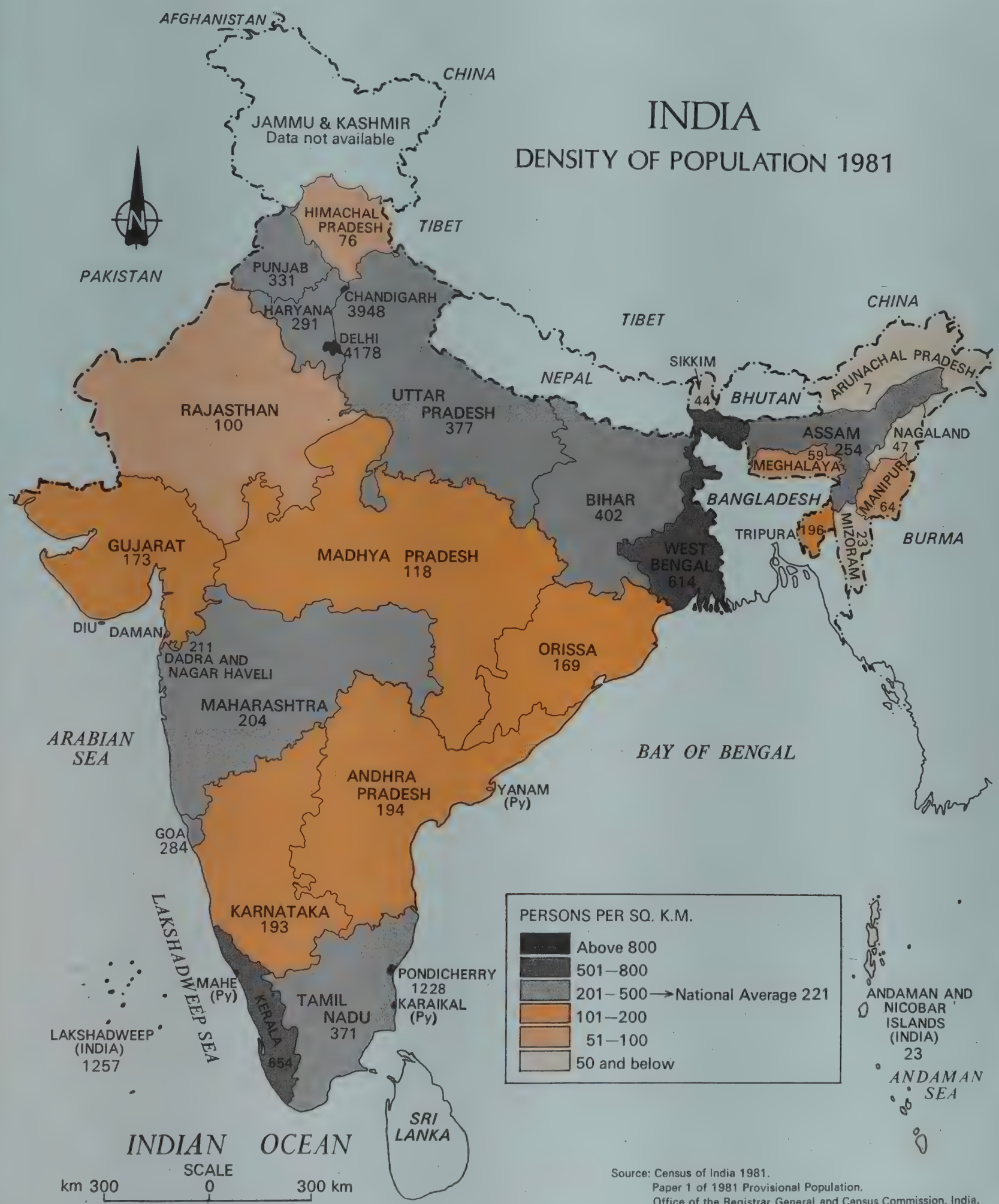
Variations in the size is a notable feature of states and union territories. Madhya Pradesh has an area of over 442,000 sq. kms., while Sikkim occupies just over 7,000 sq. km. The area of union territories also vary from Mizoram's 21,000 sq. kms. to Lakshadweep's 32 sq. kms.

Population density also varies widely from state to state, being as high as 654 per sq. km. in Kerala. Bihar, Uttar Pradesh and Tamil Nadu have a density of more than 300 persons per sq. km. In contrast, the population density for Madhya Pradesh is 118 persons per sq. km., Rajasthan (100), Himachal Pradesh (76), Manipur (64), Meghalaya (59) and Nagaland (47).

There are even greater variations among the union territories. Delhi has a density of 4,178 and Chandigarh 3,948, while Arunachal Pradesh has only seven persons per sq. km.

INDIA

DENSITY OF POPULATION 1981



Source: Census of India 1981.
Paper 1 of 1981 Provisional Population.
Office of the Registrar General and Census Commission, India.

SEX RATIO 1981

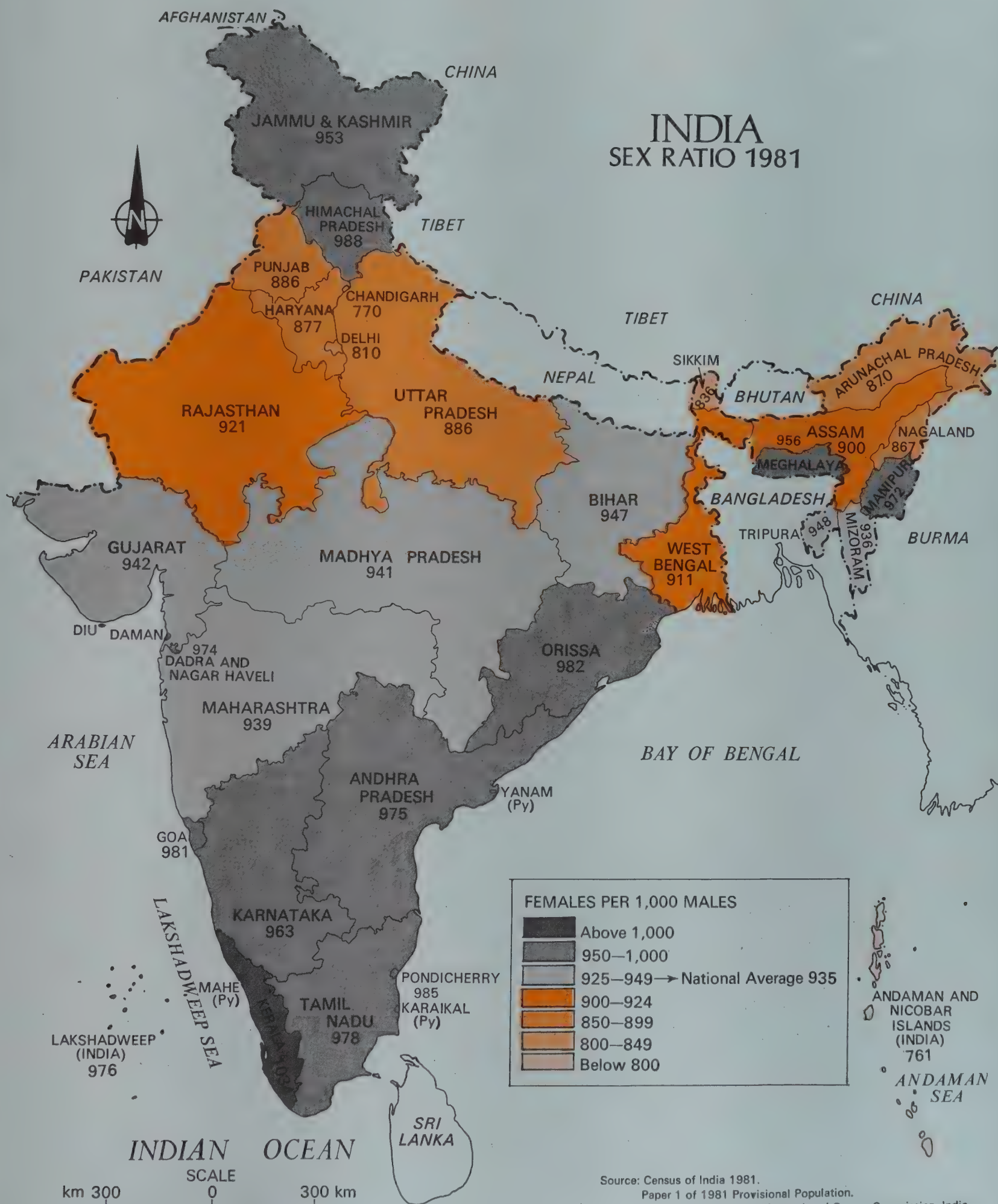
Sex ratio or the number of females per 1000 males is a crucial indicator of women's health status and survival. When the female ratio is too low, it is also indicative of high levels of male migration into cities in search of jobs.

According to provisional population totals of the 1981 Census, Kerala has the highest sex ratio of 1,034 followed by Himachal Pradesh (988). The lowest sex ratio of 761 females per 1,000 males is observed in the Andaman and Nicobar Islands, followed by the Union Territory of Chandigarh (770) and Delhi (810).

According to 1981 Census, the national average sex ratio is 935 females per 1,000 males. Fourteen states and four union territories are above this level while the remaining fall below it.

INDIA

SEX RATIO 1981

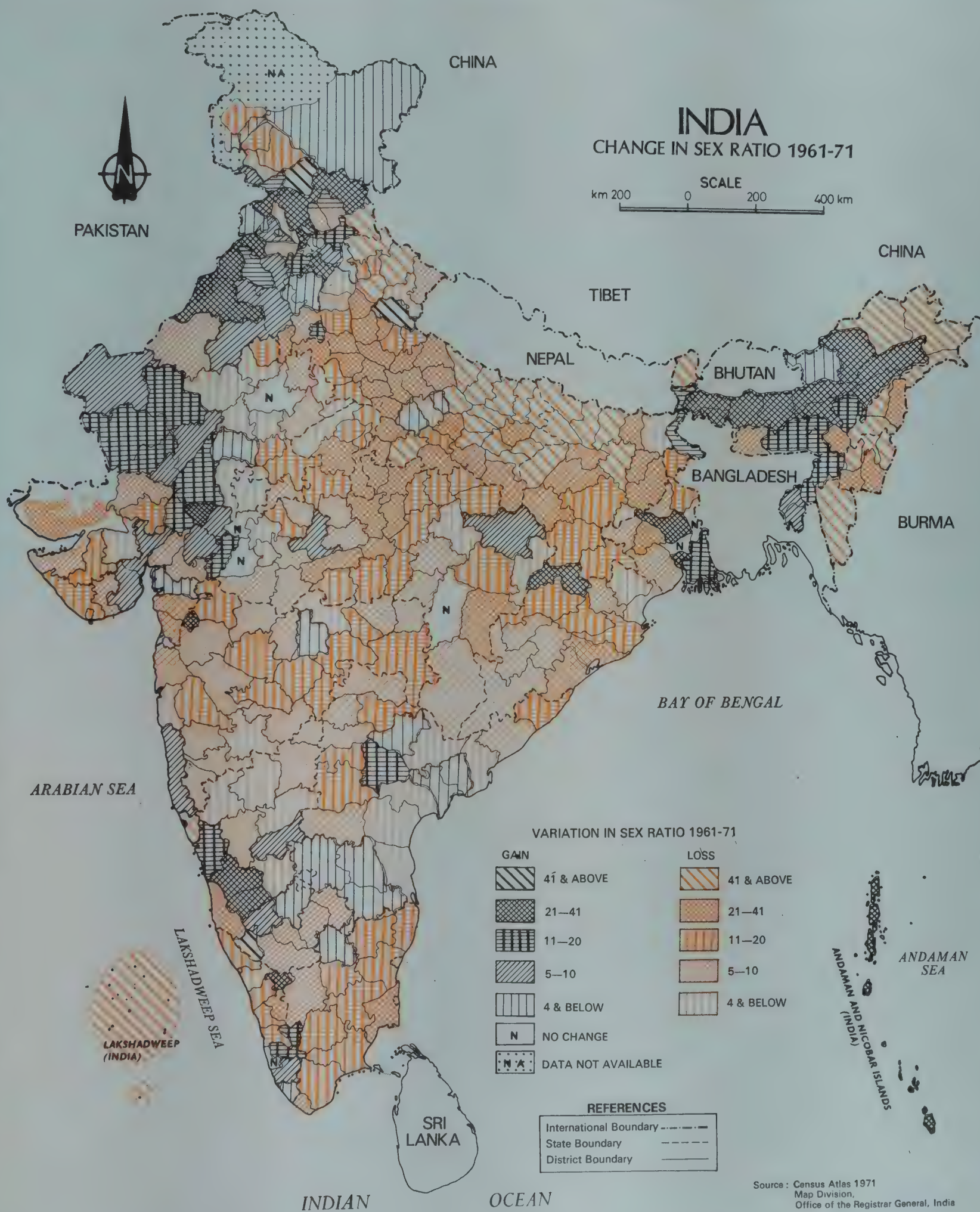




CHANGE IN SEX RATIO: 1961 - 71

Unlike developed countries, India has more males than females. The sex ratio has been declining since 1901, and was 930 females to 1000 males at the time of the 1971 Census.

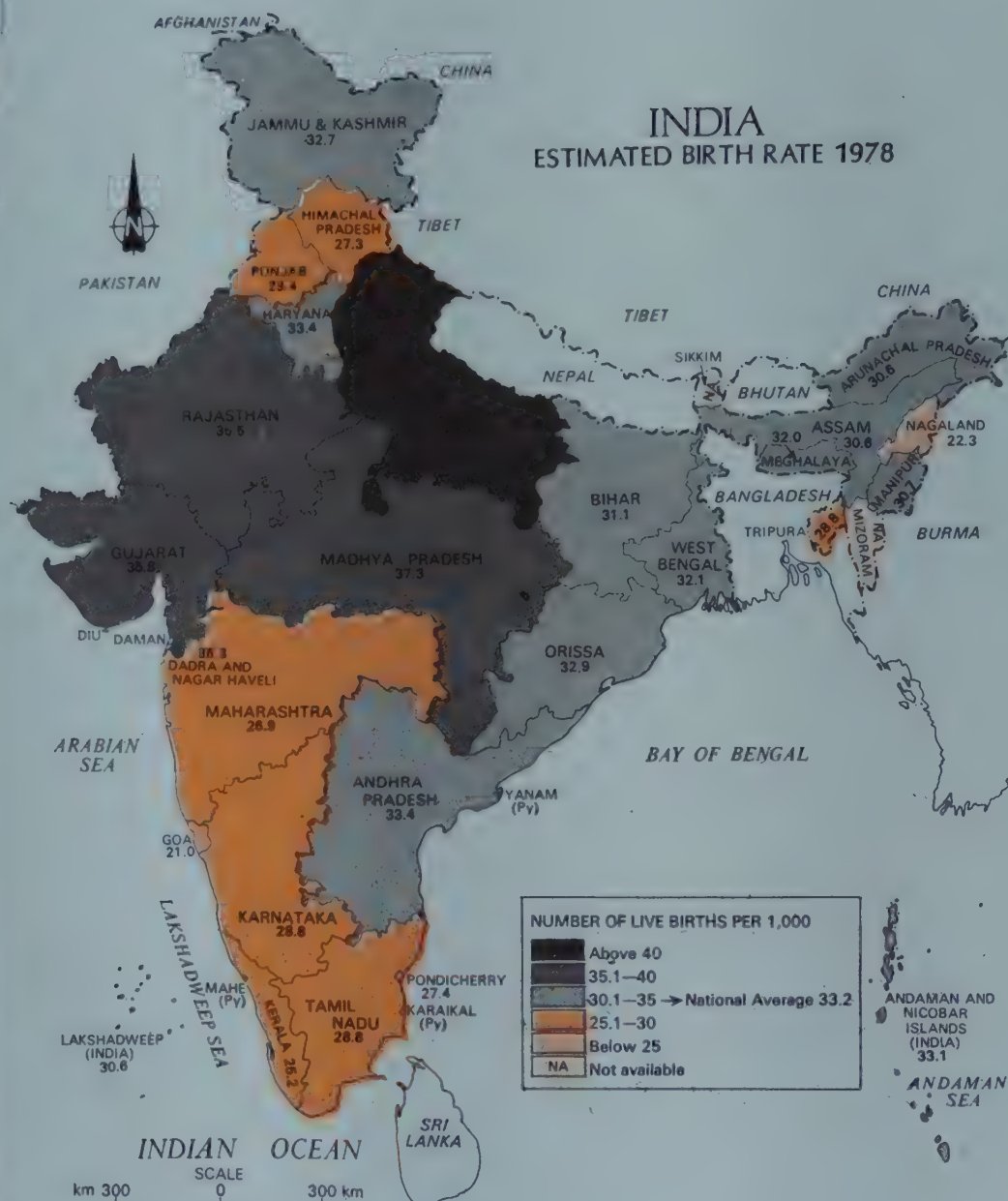
Within this overall trend, state variations are considerable. During 1961 - 71, of the 357 districts (including Sikkim as a single unit) 248 showed a decrease in sex ratio, 103 have gained, while six districts have remained steady. Fifty-seven districts indicate a decline in sex ratio between 21 - 40, 64 districts in the range 11 - 20, while only eight districts have registered an increase of 41 and above.



BIRTH RATE

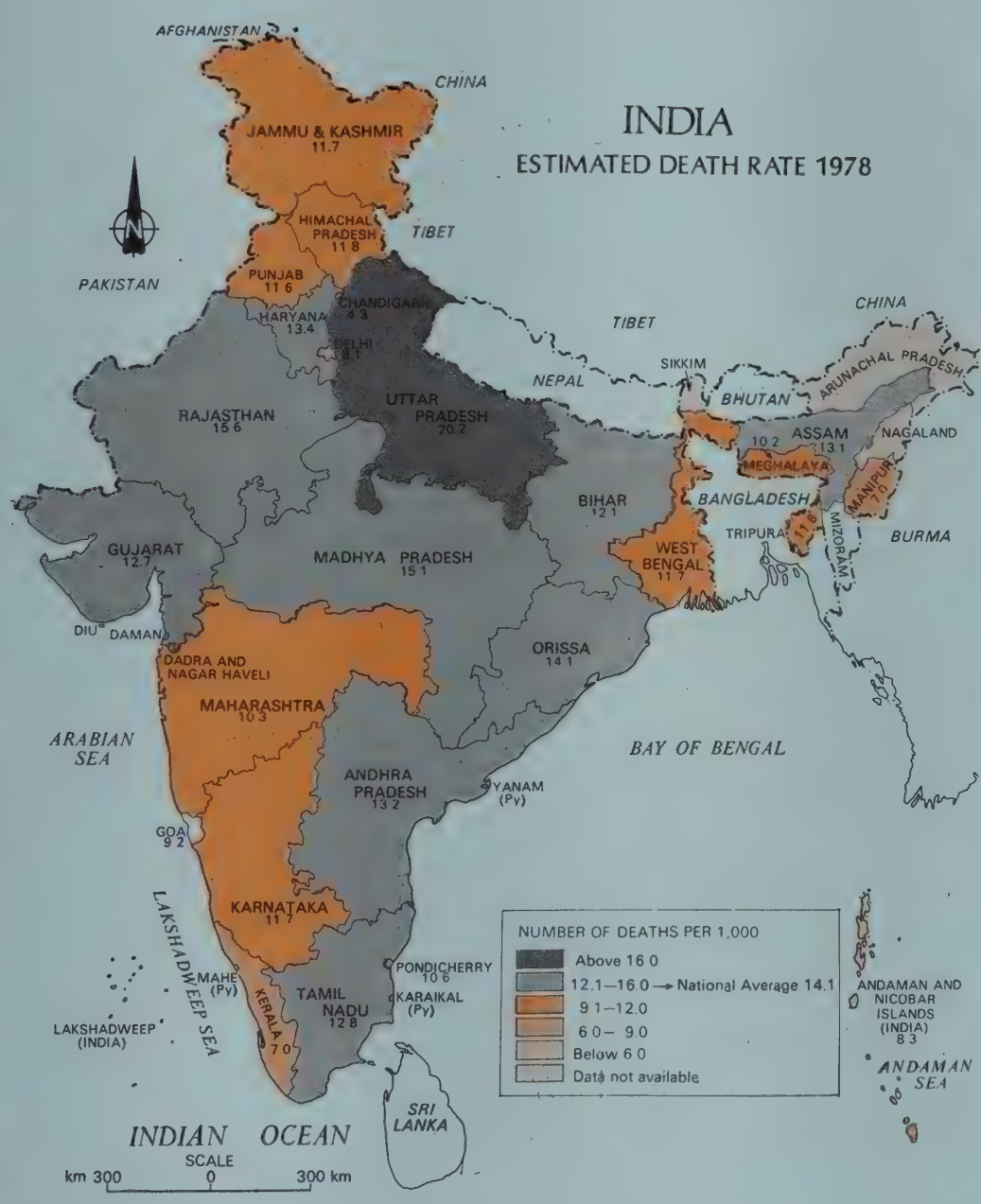
The Sample Registration Scheme of the Office of the Registrar General (India) initiated in 1964-65, is a mechanism for collecting data on vital rates throughout the country. It is based on the dual recording system.

The crude birth rate provides a measure of fertility. In 1978, the birth rate for the country was estimated at 33.2 per 1,000 population. There is wide variation in birth rates among the states and union territories. Consistently, a few states like Uttar Pradesh, Madhya Pradesh, Rajasthan and Gujarat report higher birth rates than the national average.



DEATH RATE

In 1978, the crude death rate for the country was estimated at 14 per 1,000 population. The Union Territory of Chandigarh recorded the lowest death rate of 4.3 while among states, Uttar Pradesh recorded the highest death rate of 20.2 per 1,000 population.



INFANT AND CHILD MORTALITY

The infant mortality rate (death under one year of age in a year per 1000 live births) is an important indicator of child health and development. A high infant and child mortality reflects the poor state of public health, hygiene and environmental sanitation in any country.

The infant mortality is broken into two components, namely neonatal mortality and post-natal mortality. The former relates to deaths within the first four weeks after birth. Neo-natal deaths are due to endogenous factors while post-natal deaths are due to exogenous factors like environmental and medical controls.

The infant mortality rate differs widely among the various states, between rural and urban areas, and between sexes.

States with higher infant mortality than the national average (122) are Uttar Pradesh, Gujarat, Rajasthan, Madhya Pradesh, Orissa, Assam, Andhra Pradesh, Himachal Pradesh, Haryana, Tamil Nadu and Punjab. Kerala has recorded the lowest IMR of 56.

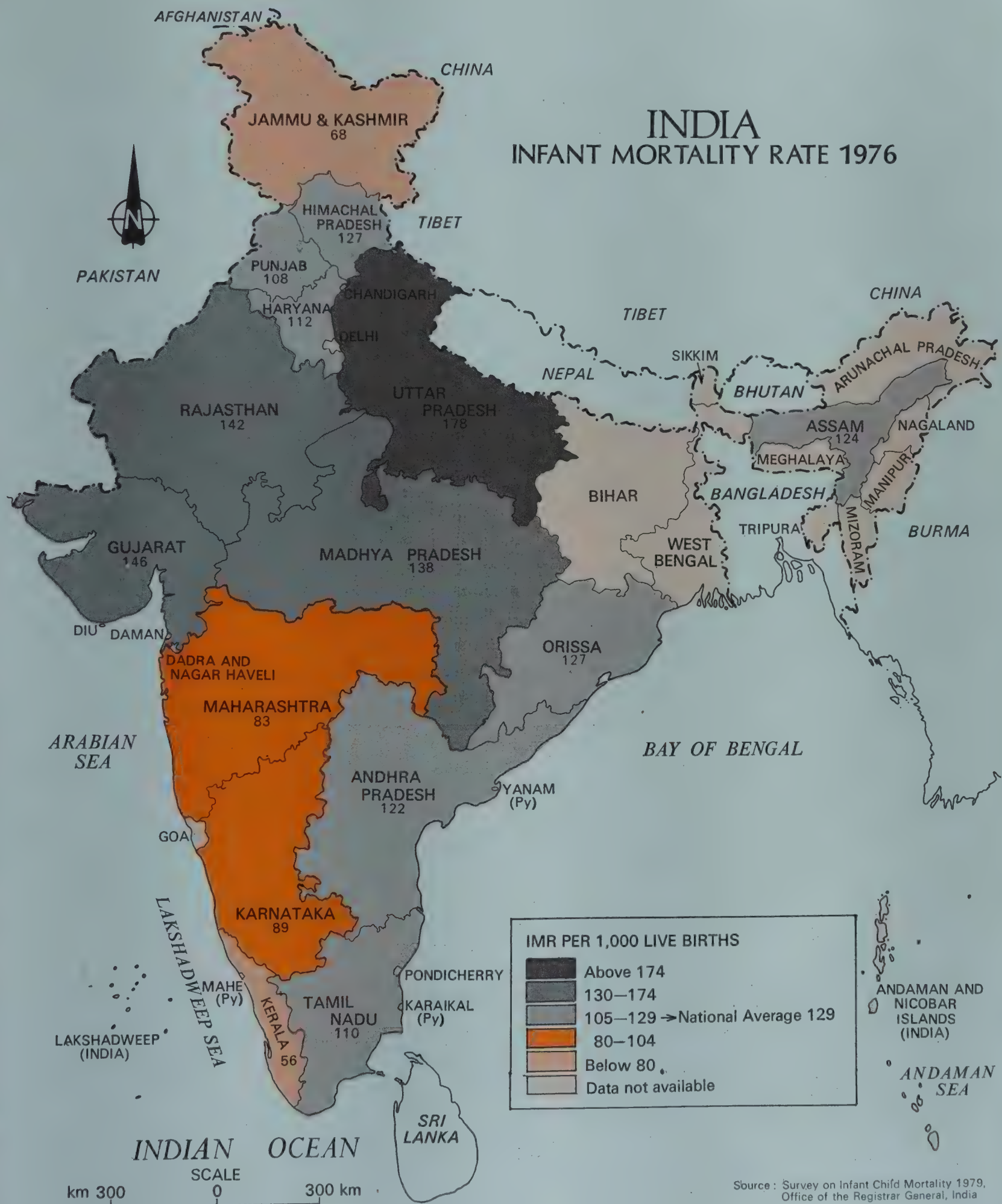
Infant mortality in the rural areas is more than that in the urban areas where most of the health facilities are easily available. There has been no significant decline in the level of infant mortality during 1970-78 in the rural areas.

Sex differentials in infant mortality are highest in Himachal Pradesh (149 female against 107 male) and Uttar Pradesh (194 female against 161 male).

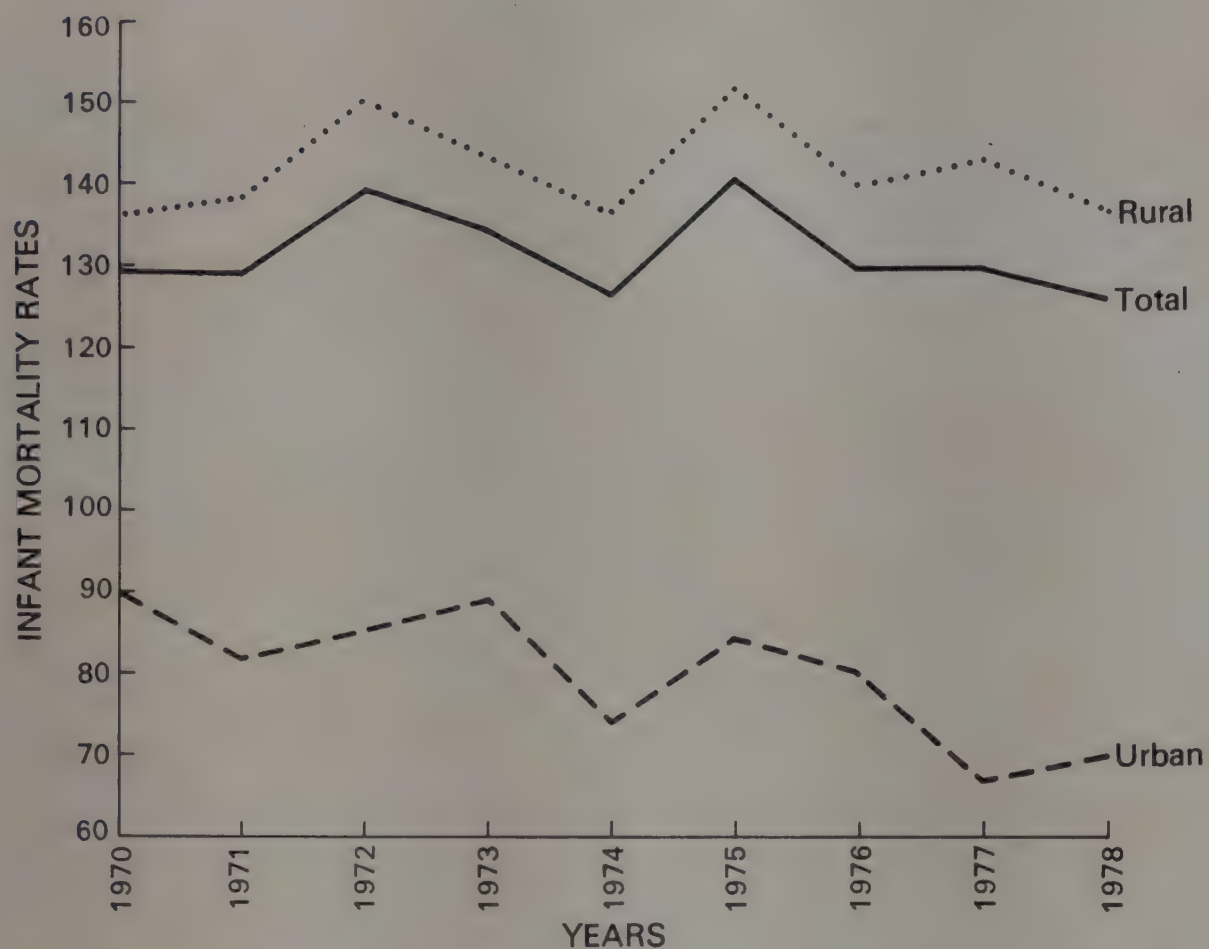
The death rate in the age group 0-4 is a key indicator of general mortality. Child mortality in the rural areas is higher than that in urban areas indicating the need for increased health services.

INDIA

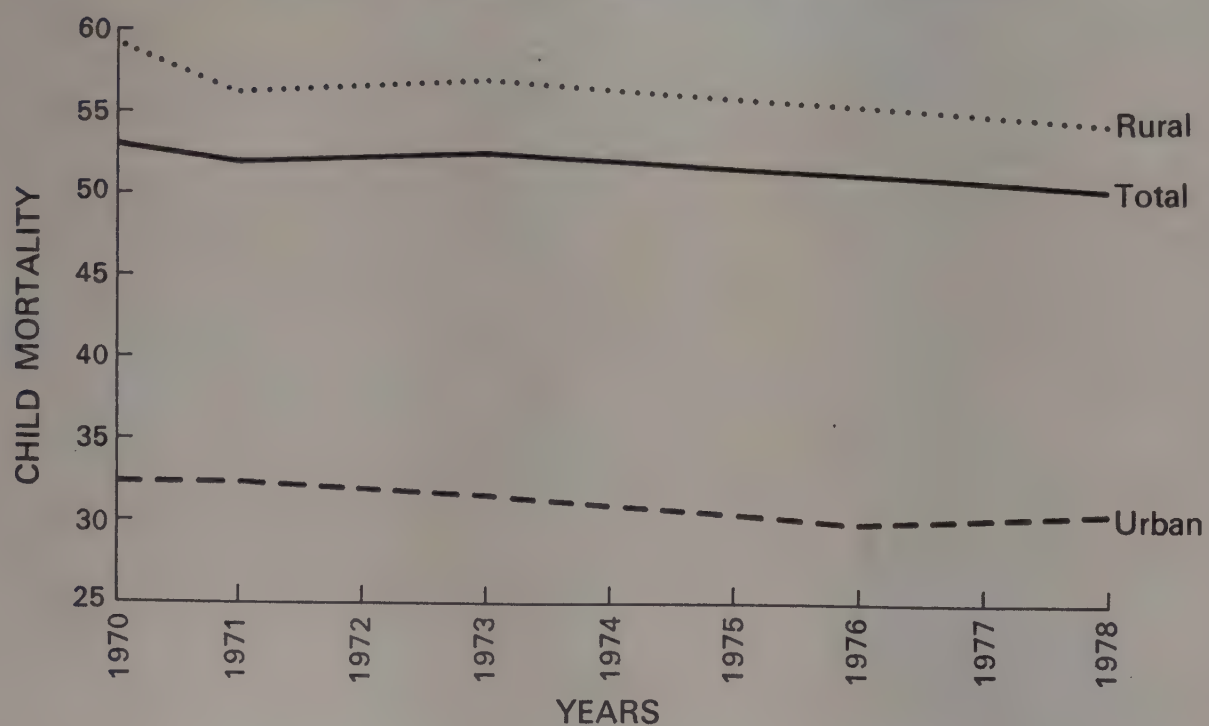
INFANT MORTALITY RATE 1976



INFANT MORTALITY RATE 1970-78

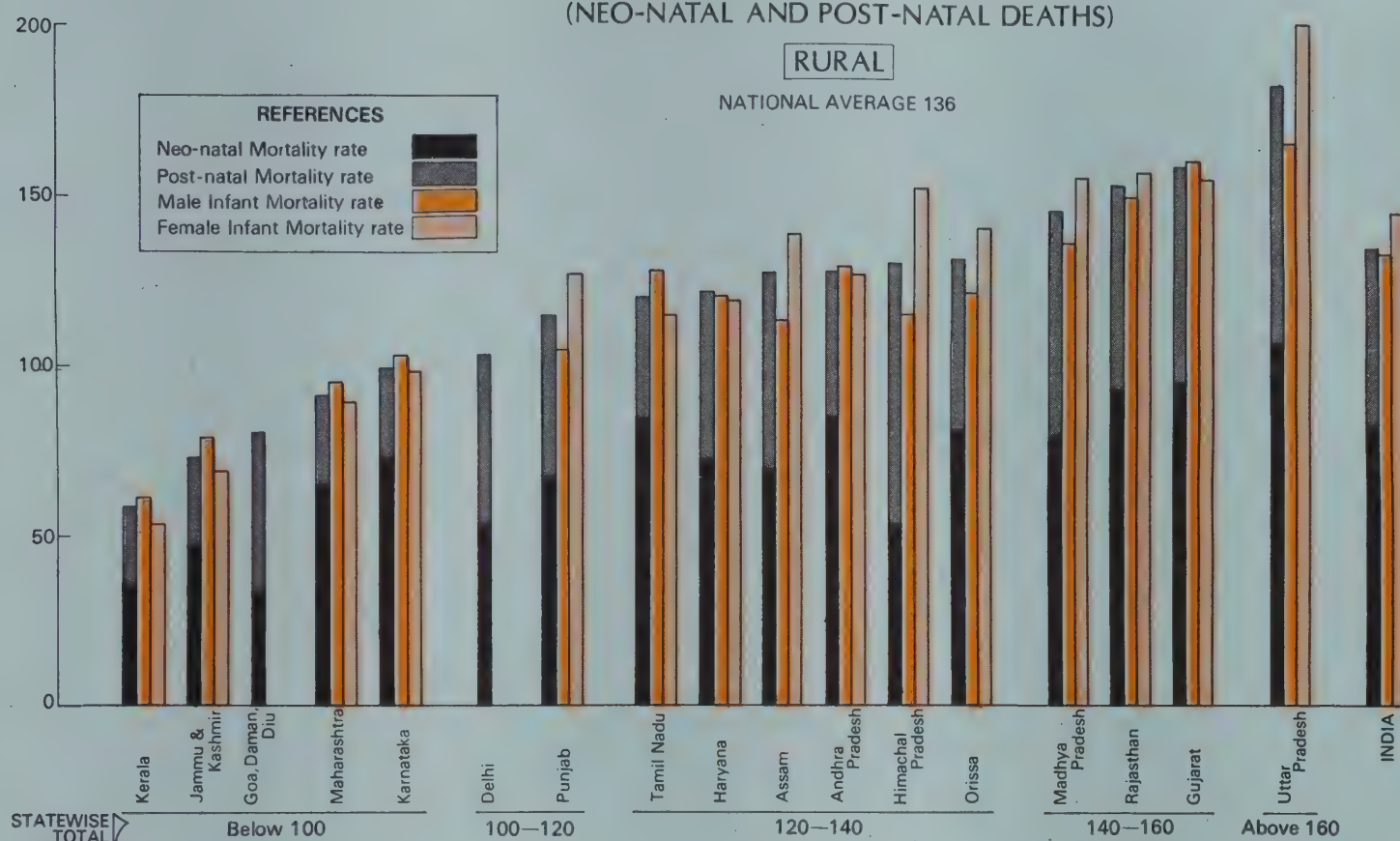


CHILD MORTALITY 0-4 YEARS

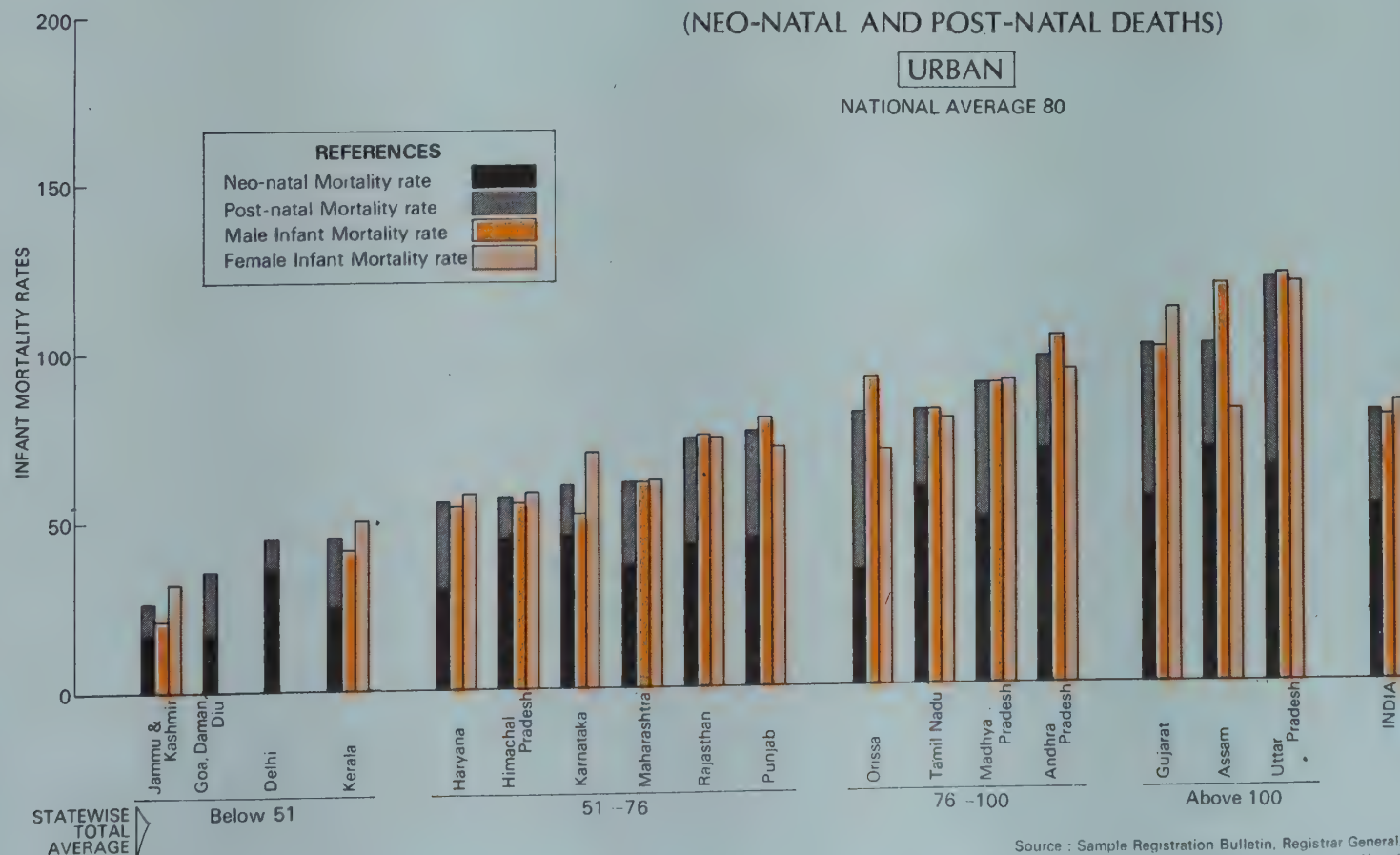


Source : Survey on Infant Child Mortality 1979,
Office of the Registrar General, India

INFANT MORTALITY RATES 1976 (NEO-NATAL AND POST-NATAL DEATHS)



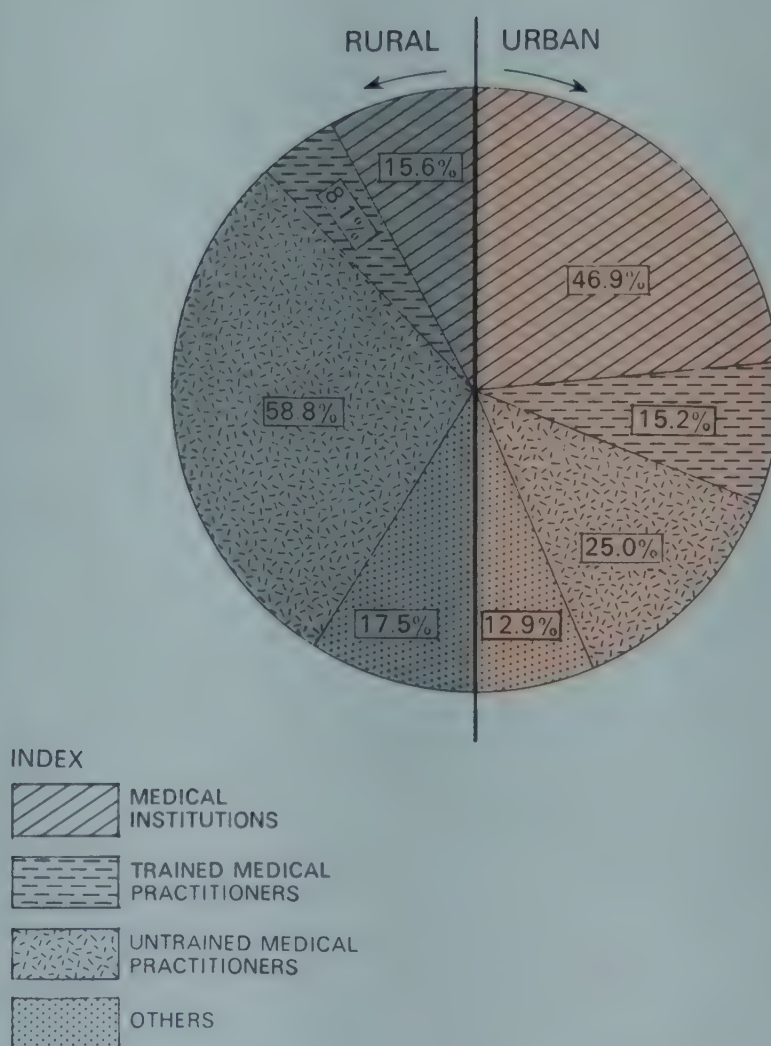
INFANT MORTALITY RATES 1976 (NEO-NATAL AND POST-NATAL DEATHS)



TYPE OF MEDICAL ATTENTION AT BIRTH

The type of medical attention received at birth is an important aspect which has a bearing on the level of mortality. In the rural areas, over 75 per cent of births is attended by untrained medical practitioners and others while in the urban areas only one-third of births does not receive medical attention by trained practitioners.

TYPE OF MEDICAL ATTENTION RECEIVED AT BIRTH, 1978

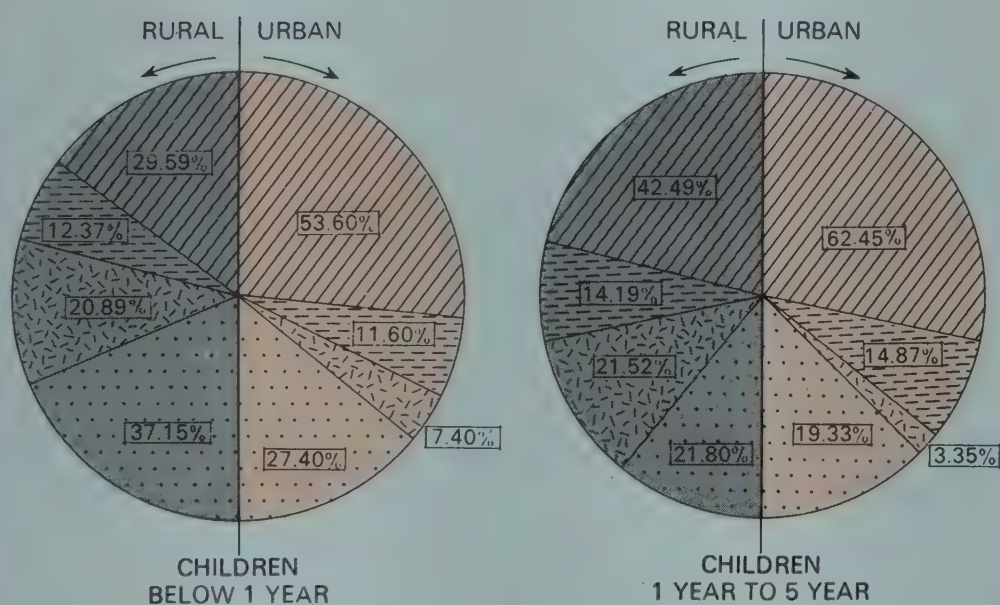


Source: Survey on Infant Child Mortality 1979, Office of the Registrar General, India





TYPE OF MEDICAL ATTENTION AT DEATH

Nearly 58 per cent of rural infant deaths are not attended by trained medical practitioners as compared to the urban areas' percentage of 35. Among child deaths in the age group 1 – 5 years, the percentages of child deaths not attended by trained medical practitioners in the rural and urban areas are 43 and 23 respectively.

TYPE OF MEDICAL ATTENTION RECEIVED AT DEATH, 1978



INDEX

-  MEDICAL INSTITUTIONS
-  TRAINED MEDICAL PRACTITIONERS
-  UNTRAINED MEDICAL PRACTITIONERS
-  OTHERS

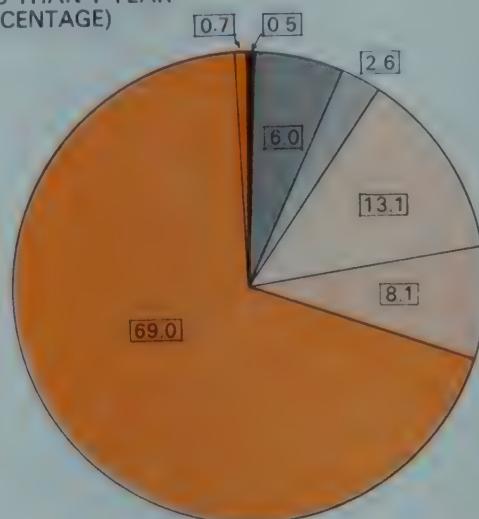
Source: Survey on Infant Child Mortality 1979,
Office of the Registrar General, India

MAJOR CAUSES OF INFANT AND CHILD DEATHS (Rural) 1977

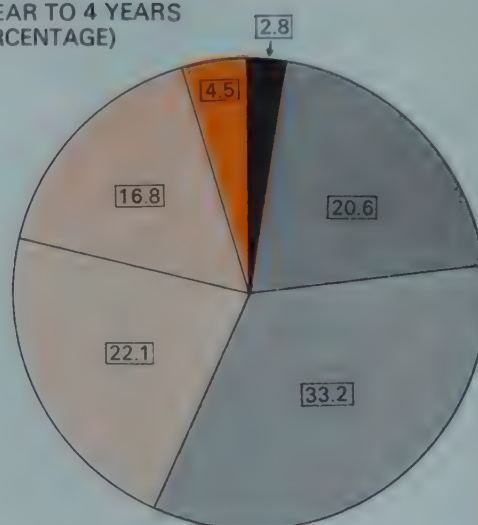
Causes of death show a different pattern for infants (less than one year) as compared to children (1 - 4 years). Causes peculiar to infancy is the dominant reason for infant deaths followed by respiratory disorders while digestive disorders form the main cause of child deaths followed in order by respiratory system disorders and fevers.

MAJOR CAUSES OF INFANT & CHILD DEATH RURAL 1977

CHILDREN
LESS THAN 1 YEAR
(PERCENTAGE)



CHILDREN
1 YEAR TO 4 YEARS
(PERCENTAGE)



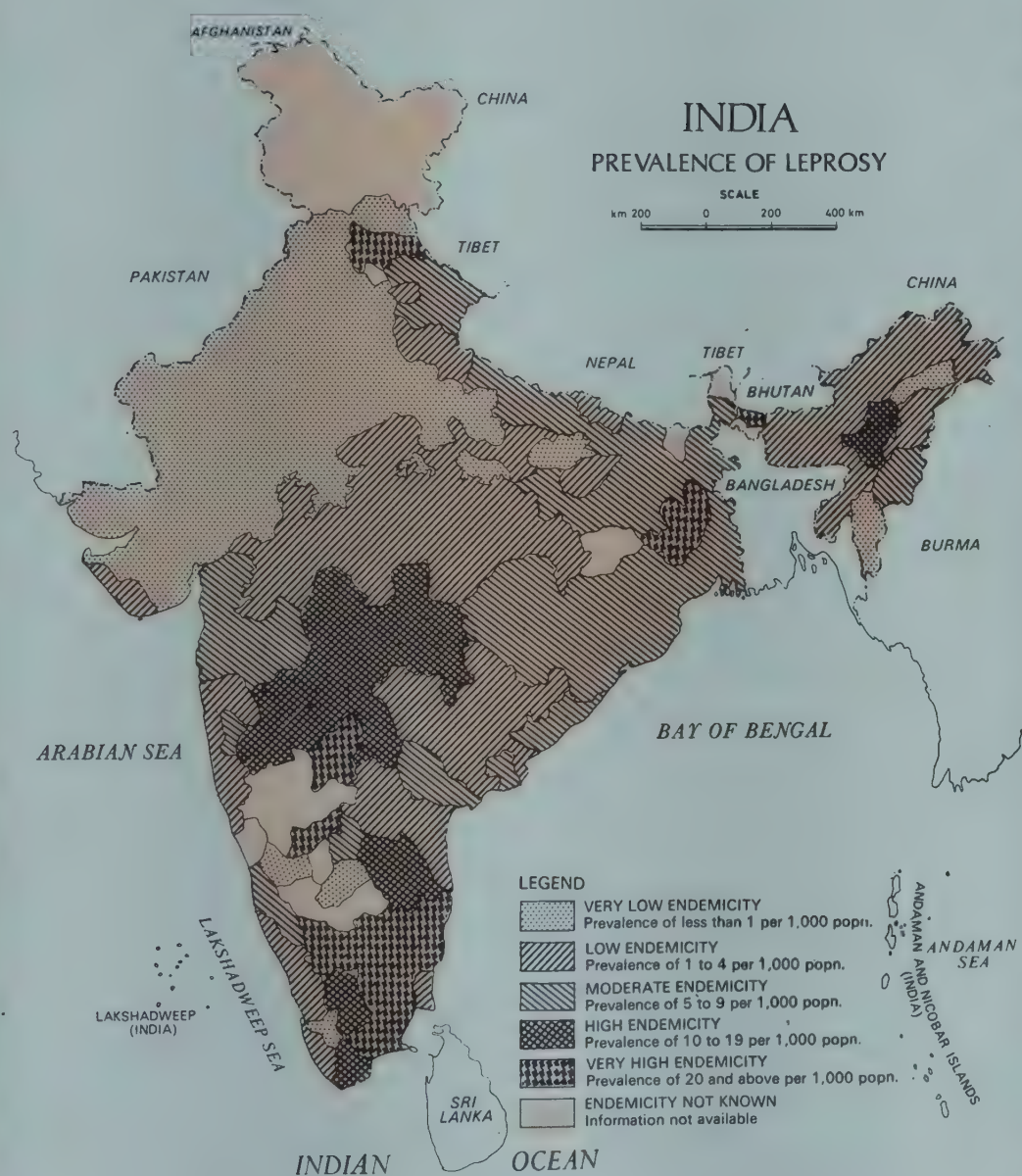
MAJOR CAUSES

- Accidents & Injuries
- Fevers
- Digestive disorders
- Disorders of Respiratory System
- Other clear Symptoms
- Peculiar to infancy
- The Rest

Source : Causes of Death 1977 (A survey)
Vital Statistics Division,
Office of the Registrar General, India

PREVALENCE OF LEPROSY

Of the 3.2 million estimated leprosy cases in the country, approximately 20 per cent are infectious and about 25 – 30 per cent suffer from deformities. About 400,000 are socio-economically dislocated and 200,000 have become beggars. Nearly half of the total cases are in two states — Andhra Pradesh and Tamil Nadu. The other states with high endemicity are West Bengal, Bihar, Maharashtra, Orissa and Uttar Pradesh.



GOITRE ENDEMIC AREAS

Goitre which arises from iodine deficiency is endemic in the sub-Himalayan region and also in certain other areas.

The Goitre Control Programme is in operation since the Second Five Year Plan period. It aims at the demarcation of goitre endemic areas of the country and supply of iodised salt to populations affected by goitre and those at risk.



HARD ROCK AREAS

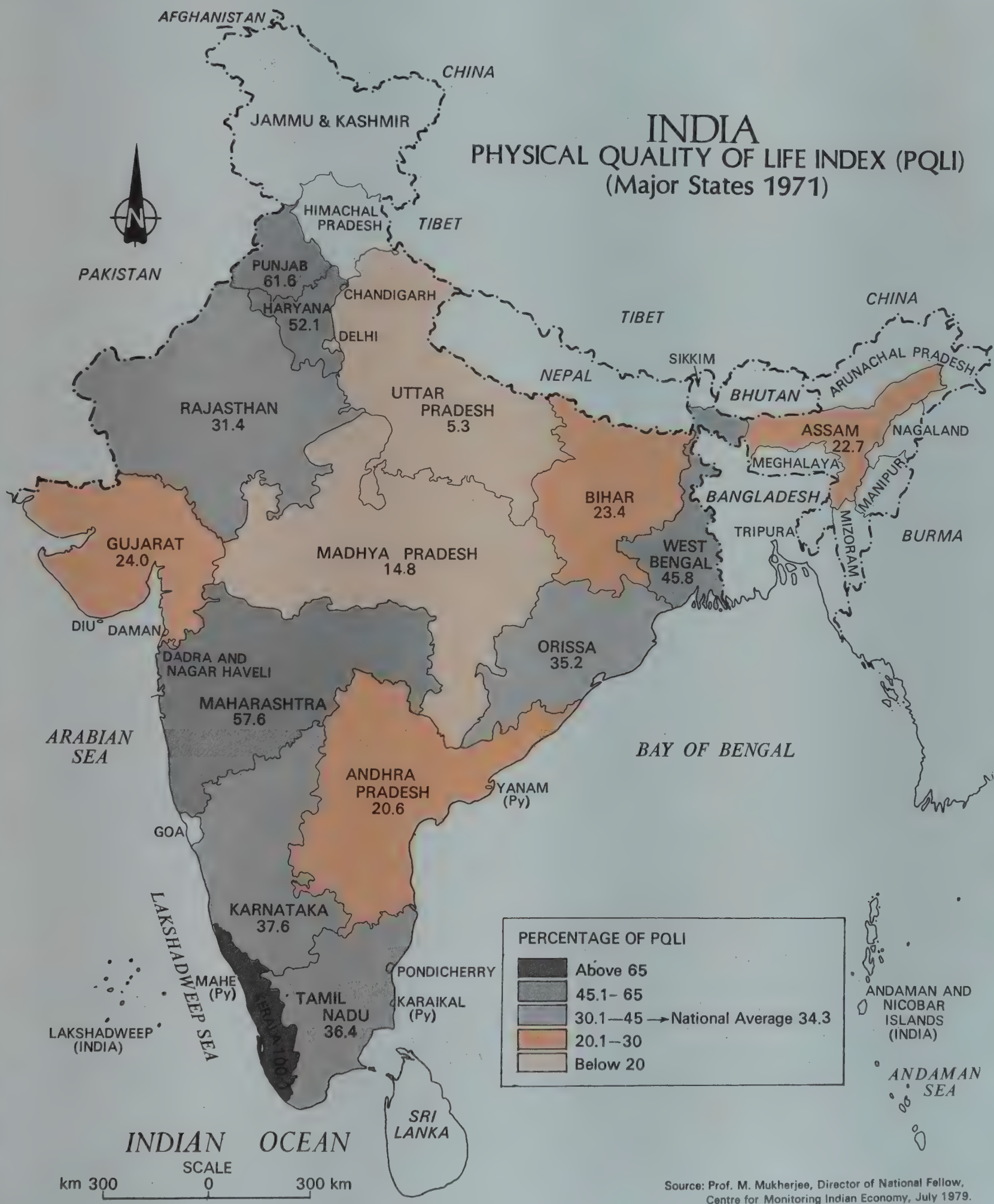
Out of the total land area of 3.28 million sq. km., nearly 70 per cent is covered by hard rock terrain, mostly comprising the southern peninsula. This area was assumed to be devoid of ground water or of meagre development potential. However, the work done by the Central Ground Water Board has shown that there are large tracts of land within the hard rock terrain which contain dynamic ground-water.

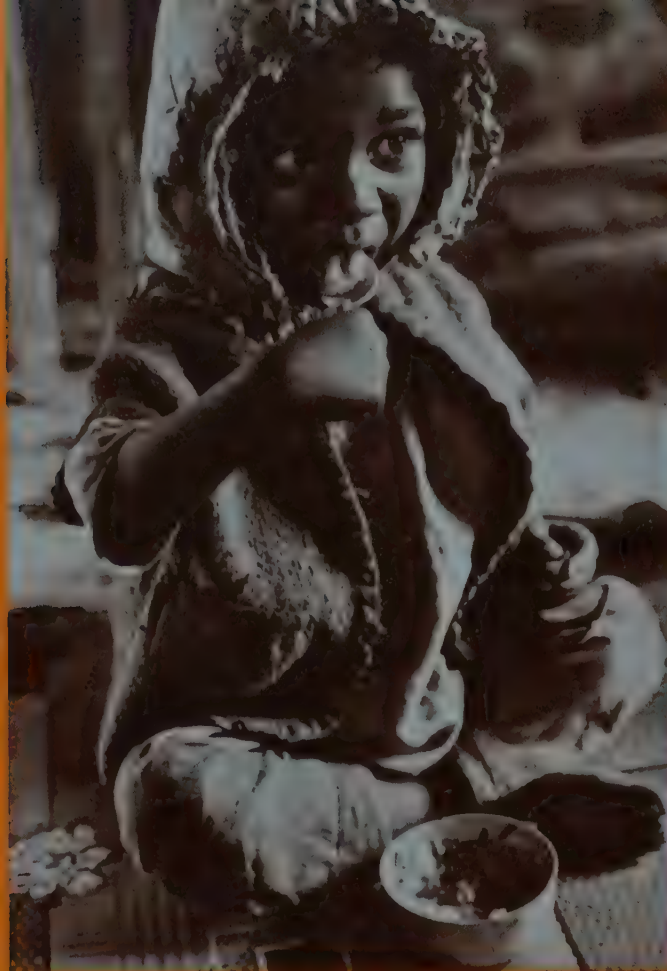


PHYSICAL QUALITY OF LIFE INDEX

Physical Quality of Life Index (PQLI), is an unweighted combination of three variables (i) literacy rate as percentage of population of age 15 and over, (ii) life expectancy at age one and (iii) infant mortality rate per 1,000 live births. The variables are scaled so that the highest value is 100 and the lowest value is zero. The PQLI index was developed by Professor Morris D. Morris.

The map depicts the PQLI estimates for 15 states with a population of 10 million or more, using scales based on the highest and lowest figures pertaining to the states in 1971. This estimate is based on life expectancy at birth instead of at age one and literacy rate for the total population instead of for those above 15 years. The states have been arranged in decreasing order, with Kerala at the top showing 100, and Uttar Pradesh at the bottom (5.3).





NUTRITION

Protein energy malnutrition is a major nutritional problem affecting children, especially during the first six years of life. Inadequate food intake, due mainly to poverty, is the major cause of under-nutrition.

Apart from general malnutrition, Vitamin-A deficiency leading to blindness or night blindness is a major problem particularly in children below six years of age. It is estimated that around 25,000 children become blind every year.

Iron deficiency anemia is another major problem and the incidence is estimated to be as high as 85 per cent among pre-school children.

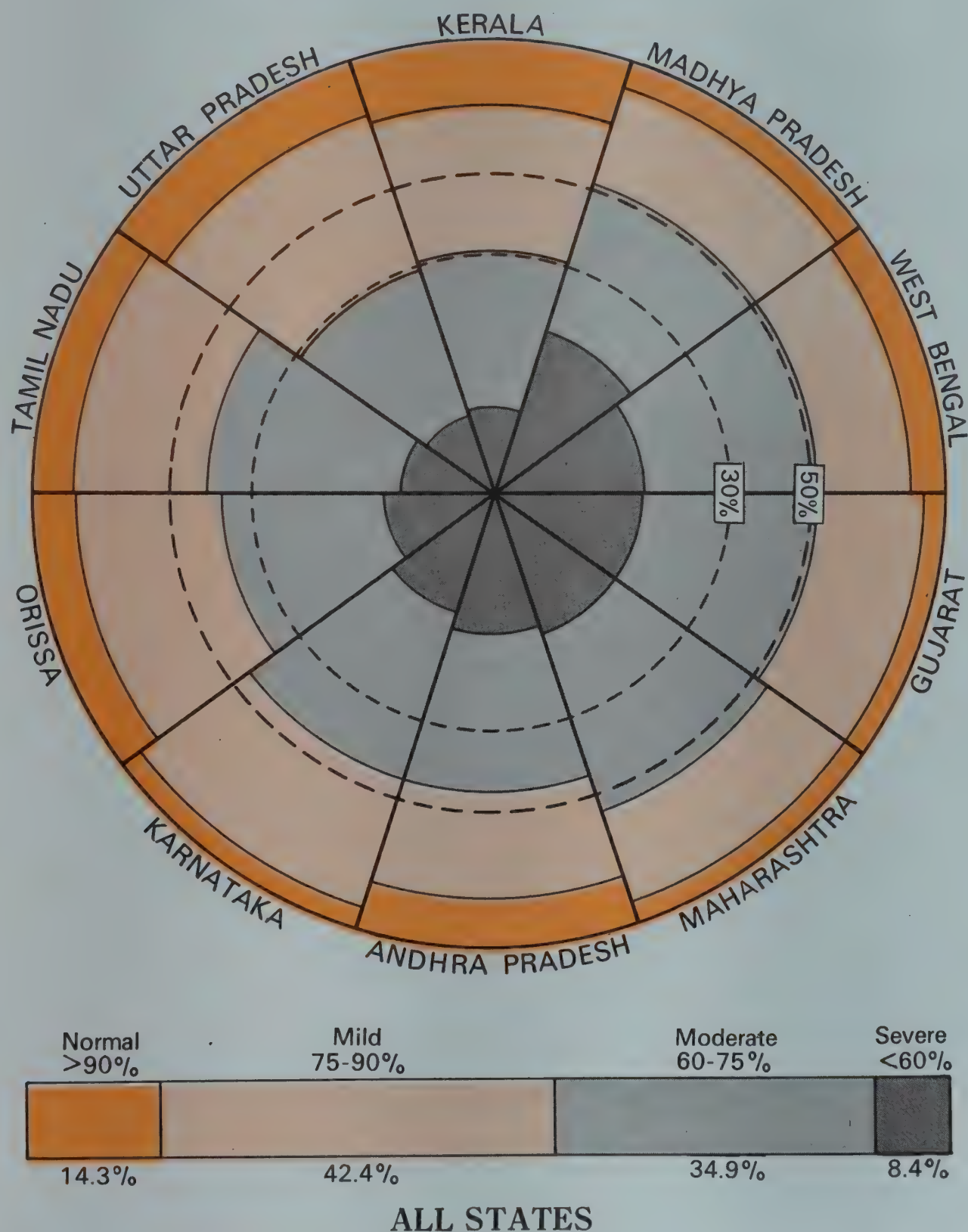
Data for ten states is being regularly collected by the National Nutrition Monitoring Bureau. The distribution of children 1–5 years old according to Gomez classification using weight for age measurement ($N = 4,713$) illustrates differences between states during 1978. The worst affected states were Maharashtra, Madhya Pradesh, Gujarat and West Bengal (50 per cent or more moderately or severely malnourished). Kerala and Uttar Pradesh have 30 per cent in these categories.

According to 1971–72 National Sample Survey, about 57 per cent

people in the rural areas were below the prescribed calorific intake of 2,400 calories recommended by the ICMR in all expenditure classes. While 95 per cent in the lowest expenditure class belonged to this category, about 19 per cent even in the highest expenditure class failed to receive the recommended intake.

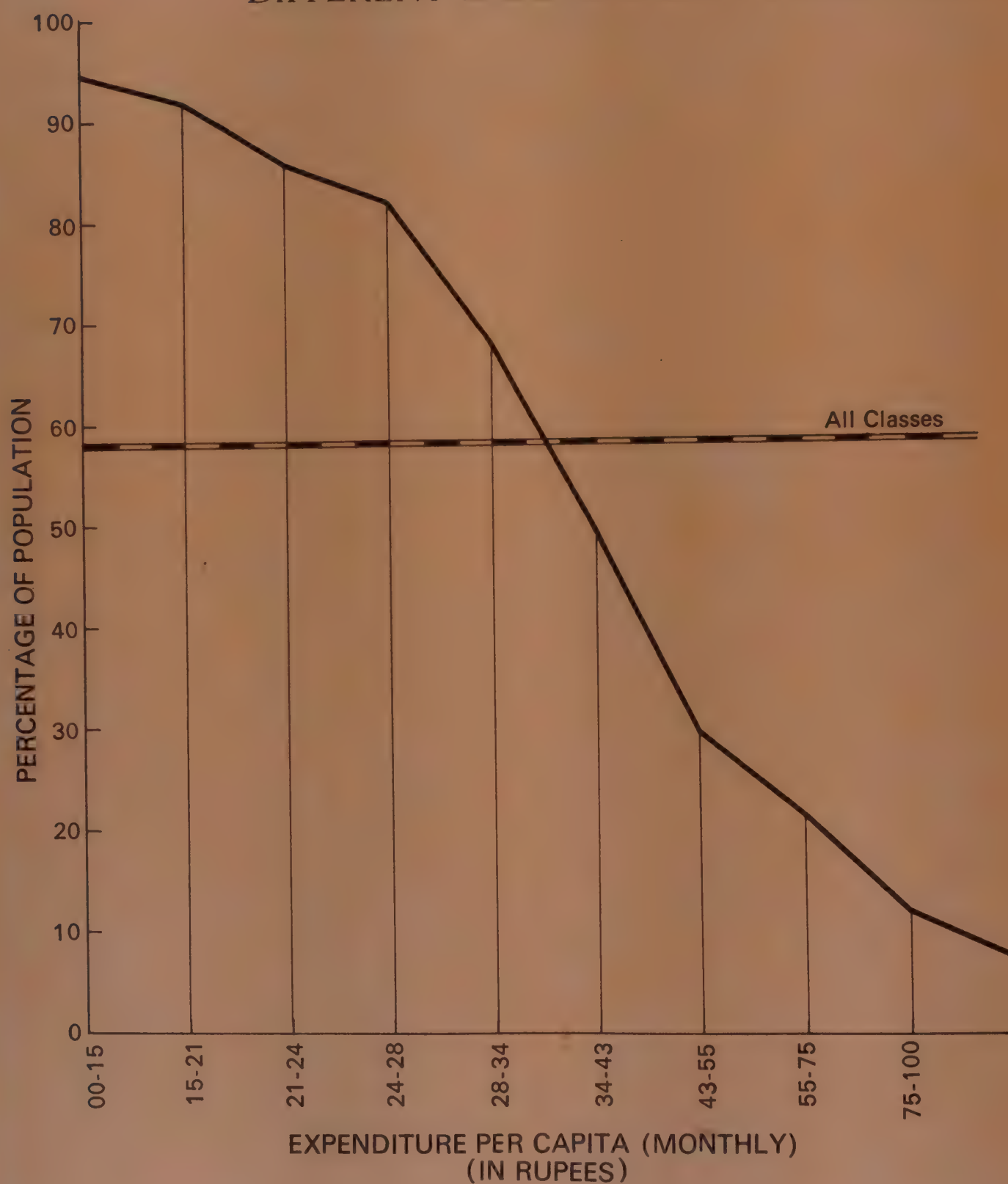
A comparison of the cost of a standard diet in relation to income in different countries indicates that if an average Indian has to get this standard diet he has to spend 110 per cent of his income, which is not possible.

**DISTRIBUTION OF 1—5 YEAR OLD CHILDREN ACCORDING TO
GRADE OF MALNUTRITION (GOMEZ CLASSIFICATION)
IN TEN STATES OF INDIA**



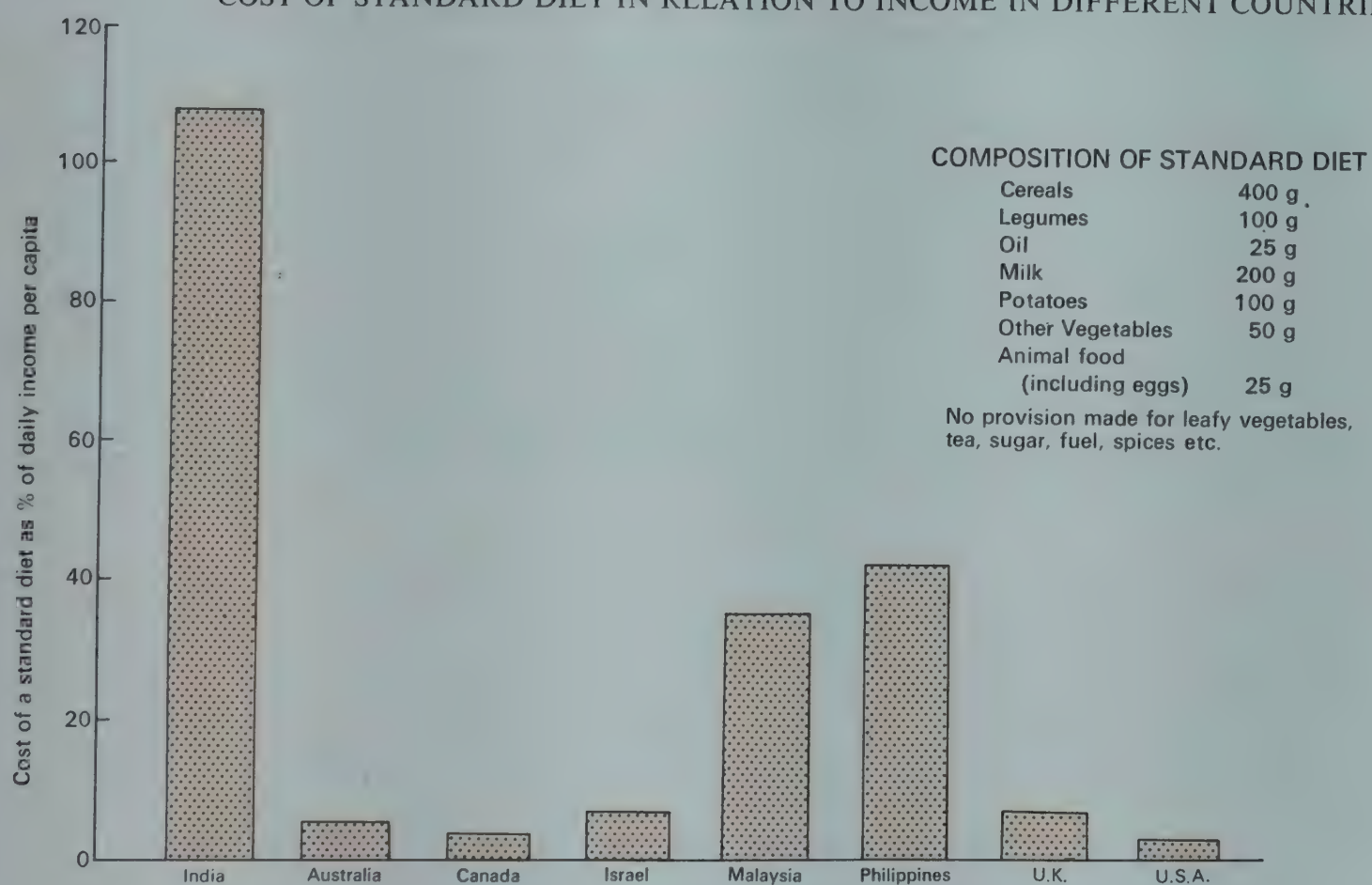
Source: National Nutrition Monitoring Bureau Report, 1978.
National Institute of Nutrition, Hyderabad, 1979.

PERCENTAGE OF RURAL POPULATION
BELOW PRESCRIBED CALORIFIC INTAKE IN
DIFFERENT EXPENDITURE CLASSES (1971-72)



Source : Behavioural Sciences and Rural Development.
National Institute of Rural Development, January 1980.

COST OF STANDARD DIET IN RELATION TO INCOME IN DIFFERENT COUNTRIES



Source : The Baroda Journal of Nutrition: Vol. 3, No. 1 July 1976
M.S. University of Baroda

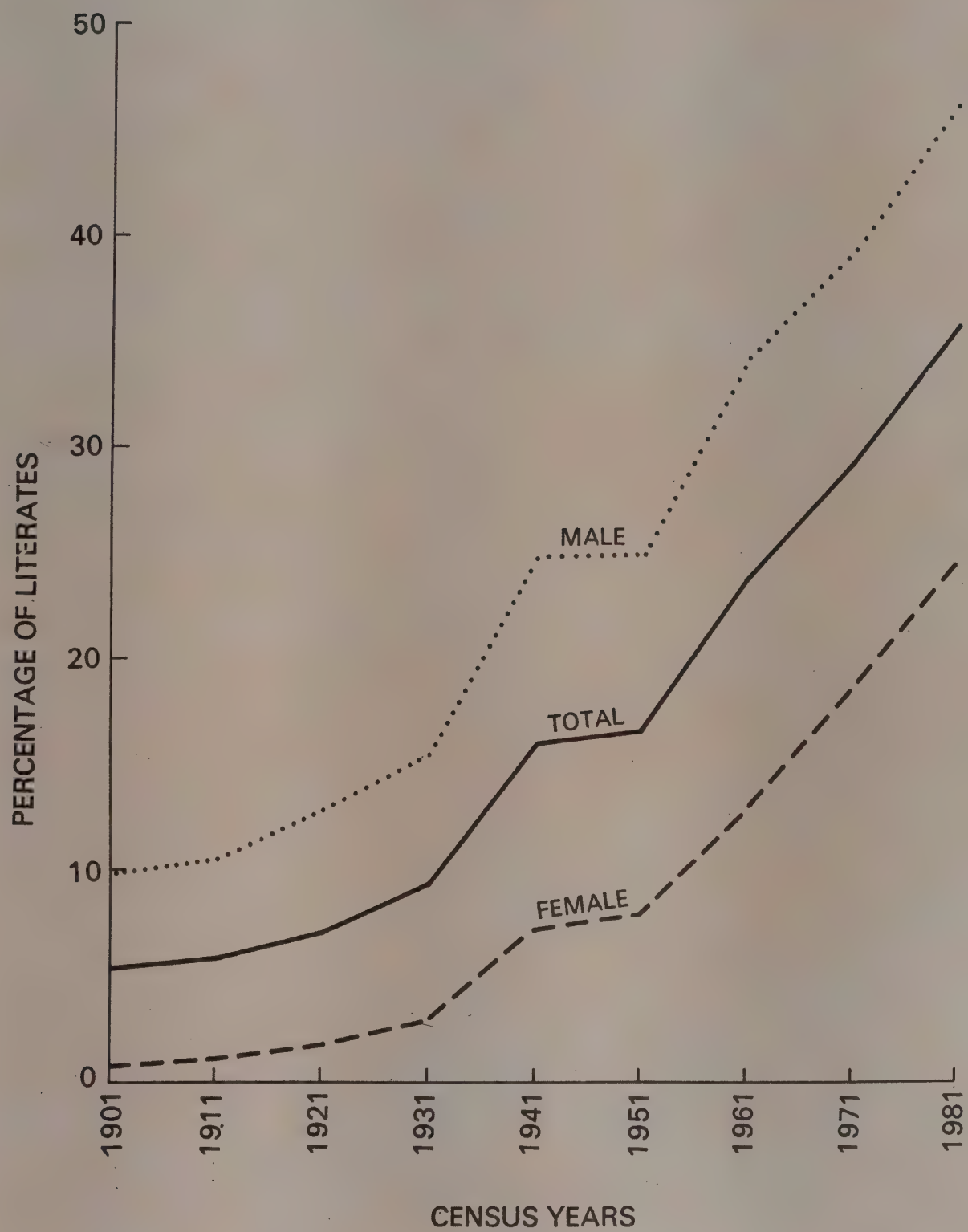


LITERACY

Despite improvements in literacy rate from 1901, (five per cent) to 1981 (36 per cent), the actual number of illiterates has increased from 225 million to 445 million. This is due to increase in population. As in earlier decades, female literacy in 1981 (25 per cent) lags behind male literacy (47 per cent).

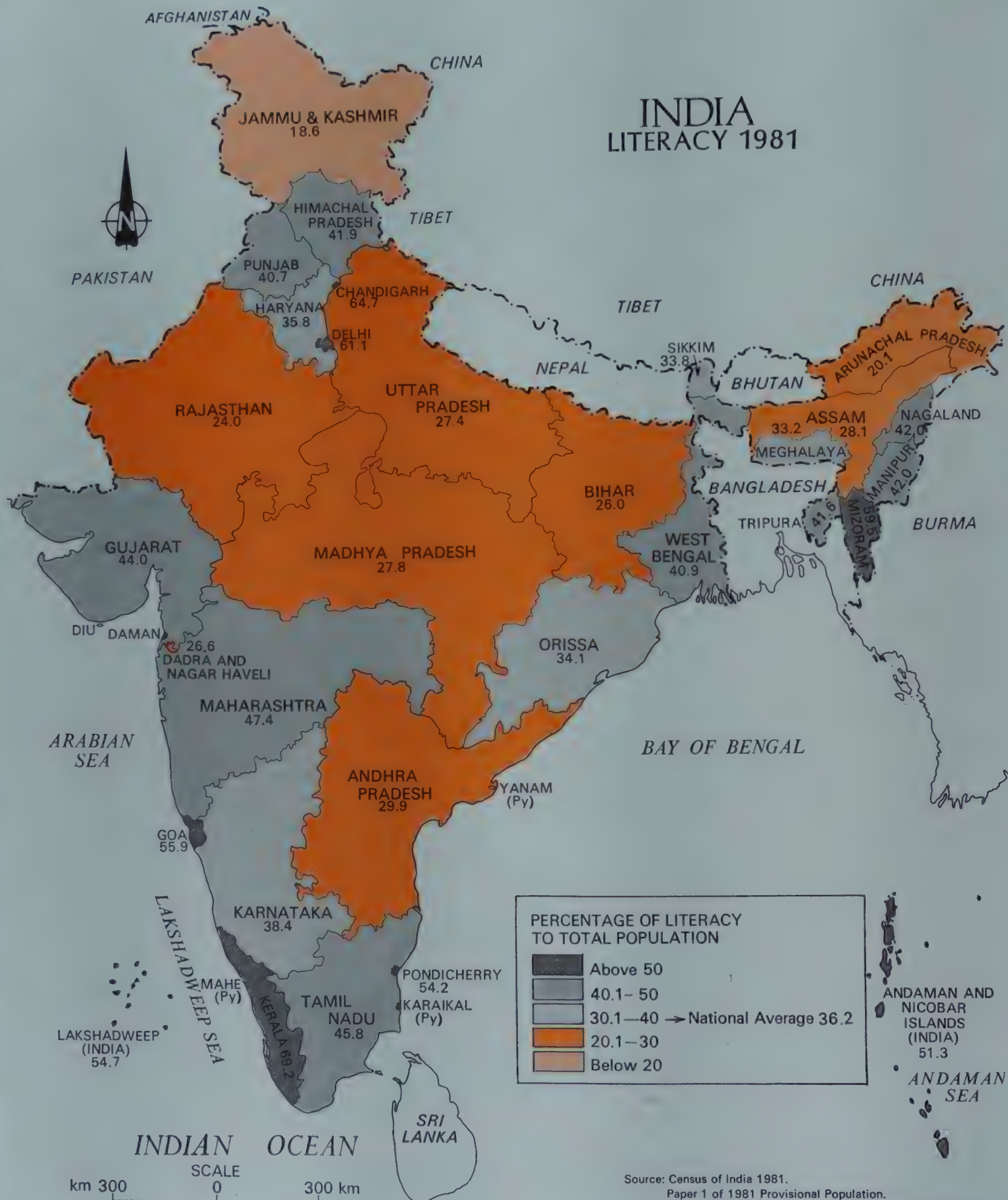
There is a wide variation among states and union territories. According to the 1981 Census, Kerala tops the list (69 per cent) and Rajasthan (24 per cent) has the lowest literacy among states. Among union territories, Chandigarh has the highest literacy rate of 65 per cent and Arunachal Pradesh, the lowest with 20 per cent of the population being literate.

LITERACY 1901-81

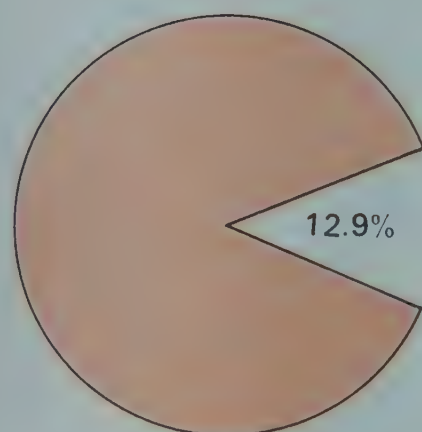


Source: Census of India 1981.
Paper 1 of 1981 Provisional Population.
Office of the Registrar General and Census Commission, India.

INDIA LITERACY 1981



FEMALE LITERACY RATES

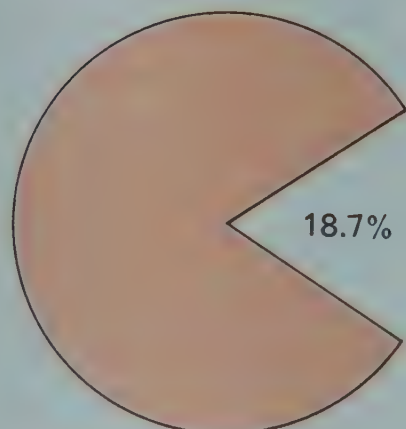


Literate 27.6 million

1961

Literate

TOTAL FEMALE POPULATION 212 MILLION

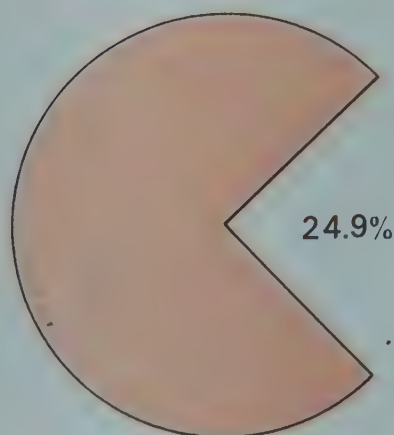


Literate 49.4 million

1971

Literate

TOTAL FEMALE POPULATION 264 MILLION



Literate 79.2 million

1981

Literate

TOTAL FEMALE POPULATION 318 MILLION

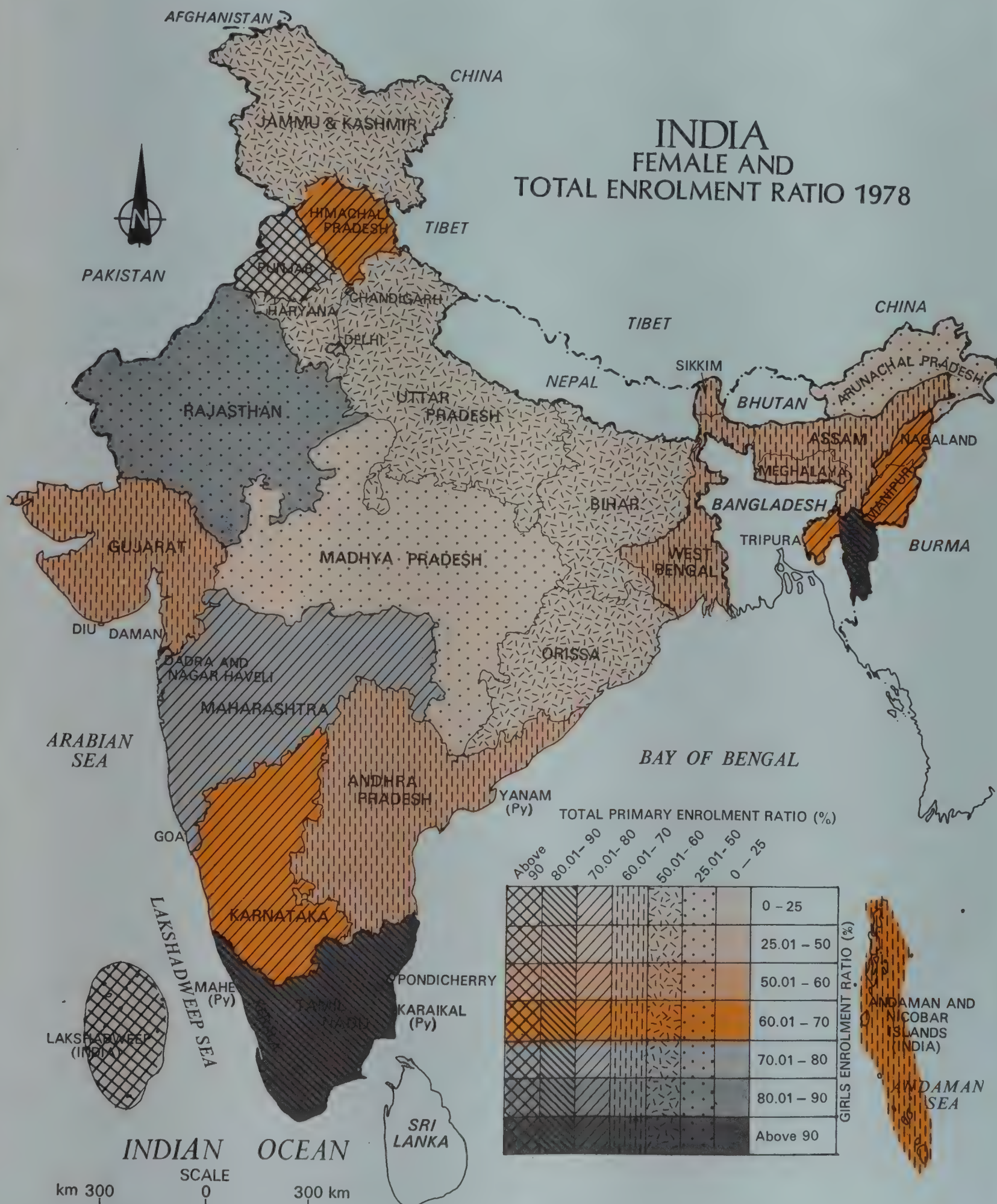


ENROLMENT RATIO

The map displays the total enrolment ratio over female enrolment ratio in primary schools.

The enrolment ratio is the percentage ratio of number of students in 6 – 10 age group to the total child population in that age group.

According to the Fourth All India Educational Survey (1978), among the states, Punjab reported the highest total enrolment ratio of 93 per cent and Rajasthan, the lowest with 45 per cent. The female enrolment ratio was also highest in Punjab (89 per cent) and lowest in Rajasthan (23 per cent). The Union Territory of Lakshadweep reported the highest female enrolment ratio of 91 per cent in the country, while Arunachal Pradesh had the lowest enrolment ratio among the union territories.





RETENTION CAPACITY OF PRIMARY SCHOOLS

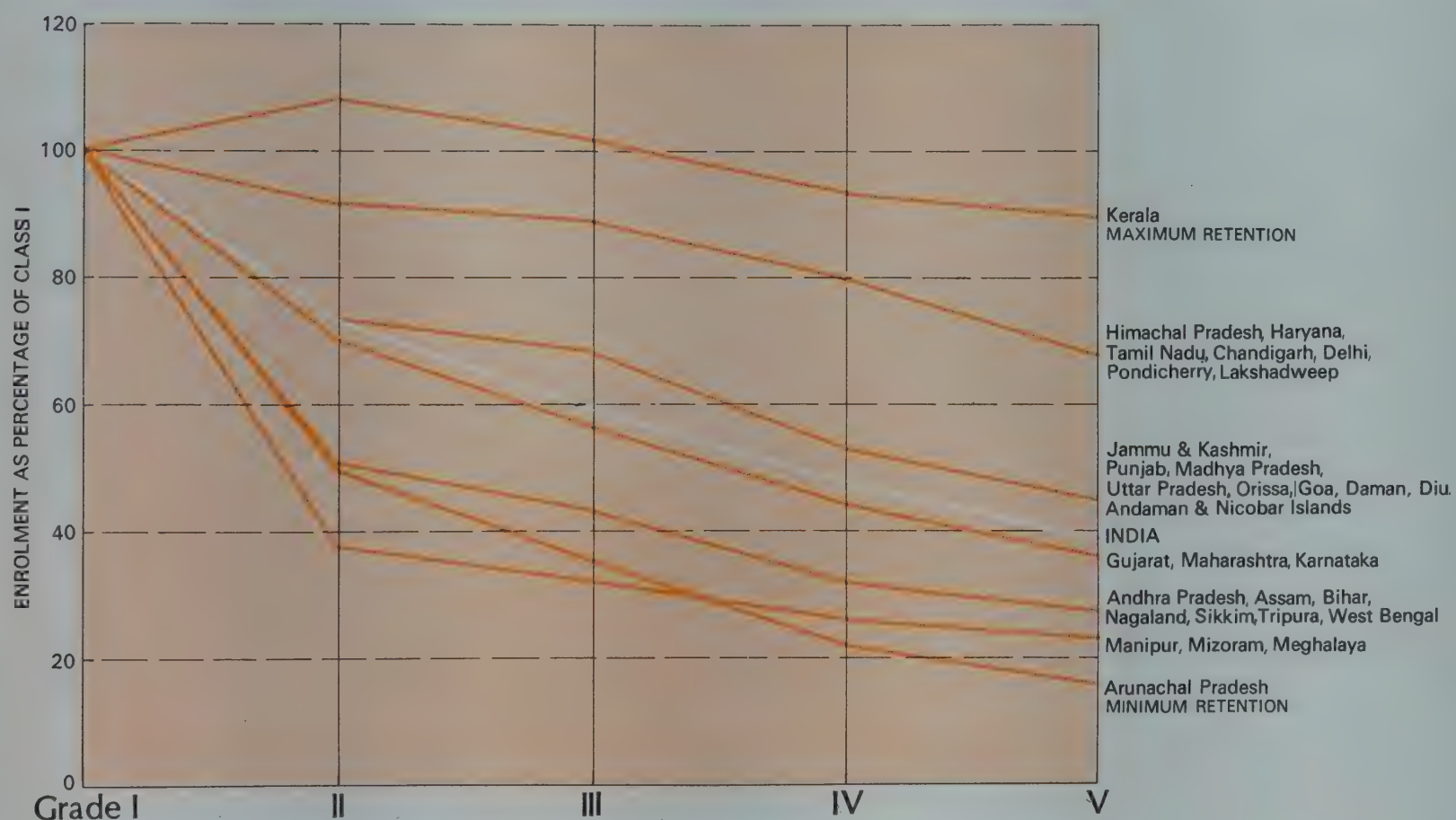
Retention capacity of primary schools has been defined as enrolment in Grade II to V as percentage of enrolment in Grade I.

The national average of students reaching Class V is only 39 per cent and in Class II, 73 per cent if that in Class I is 100 per cent. The Union Territory of Arunachal Pradesh has the lowest retention rate of 16 per cent in Class V as contrasted with the drop to 68 per cent in seven states and union territories, and Kerala reflecting maximum retention of 90 per cent in Class V.

In Kerala, for Class II and III the enrolment percentage exceeds 100 probably because of new entrants in Class II and III constituting immigrants.

RETENTION CAPACITY OF PRIMARY SCHOOLS 1978

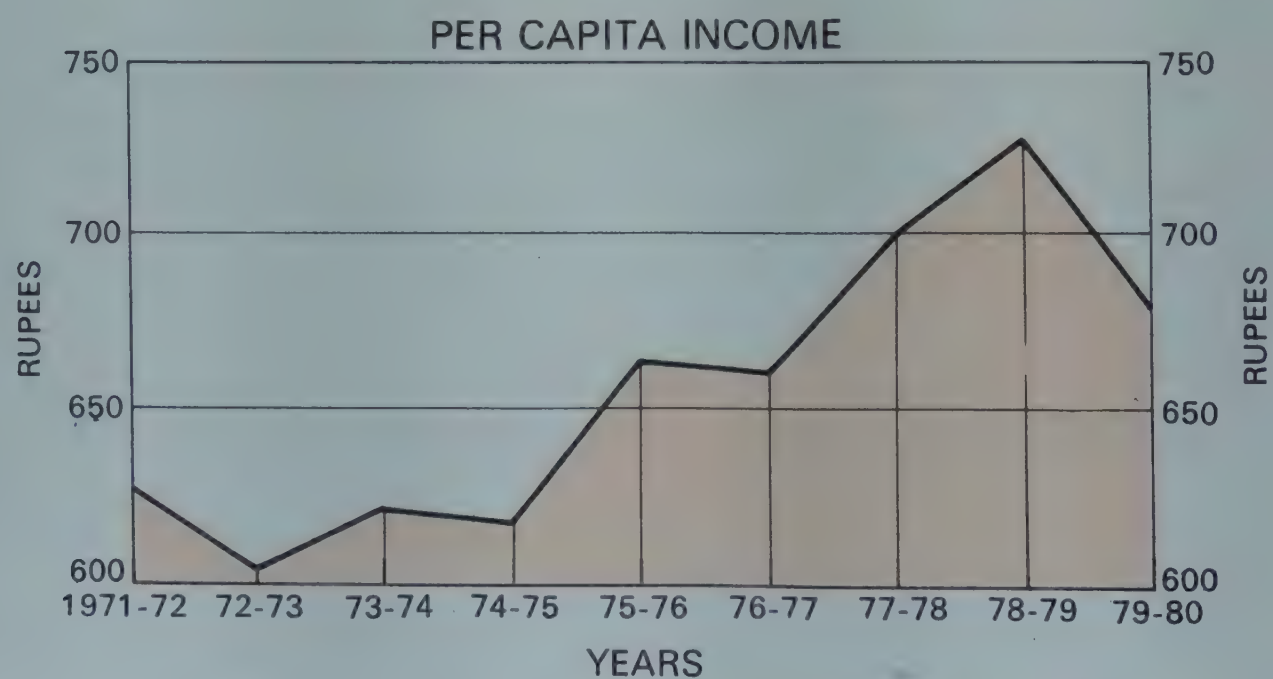
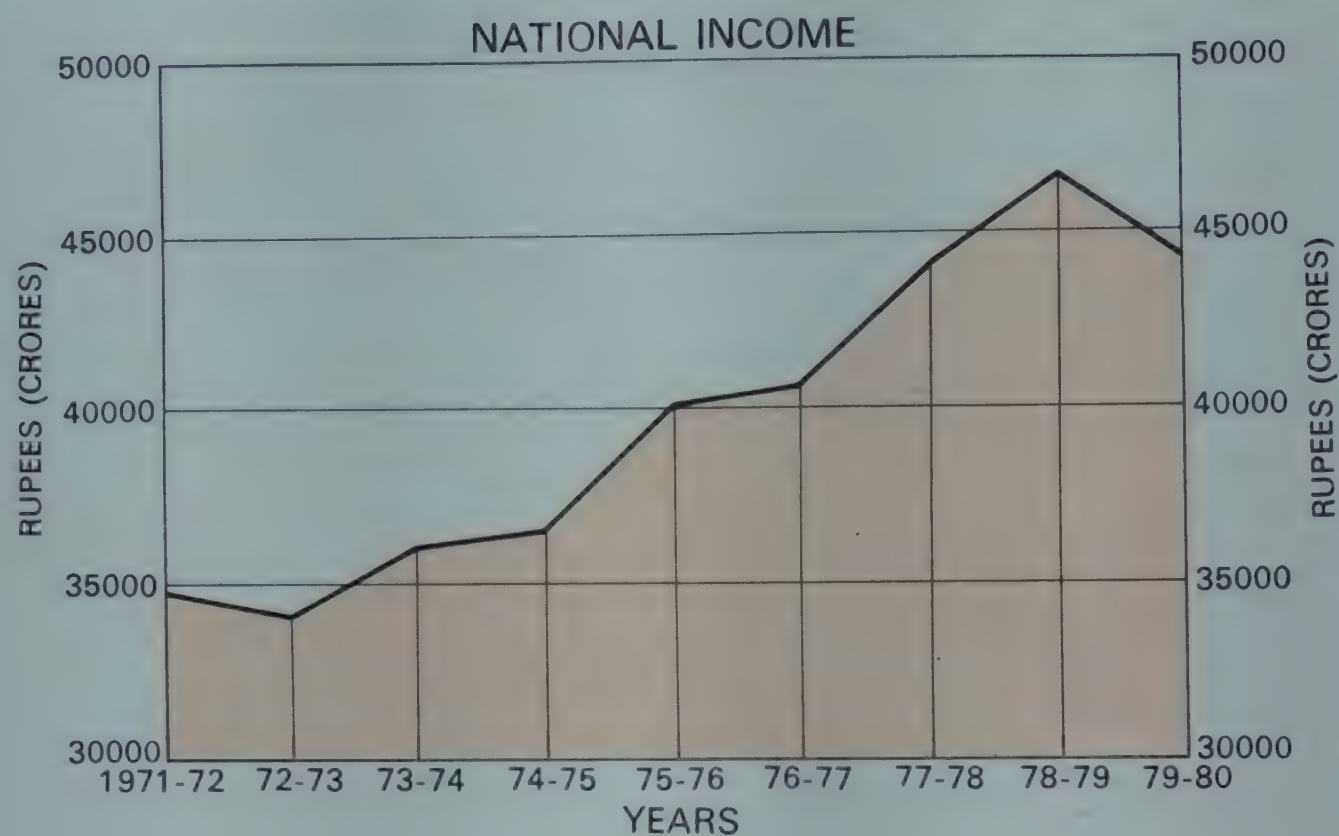
(Enrolment in Grades II to V as percentage of enrolment in Grade I)



Source : Fourth All India Educational Survey,
National Council of Educational Research & Training, New Delhi,

Note : State/Union Territories with
similar trends grouped together.

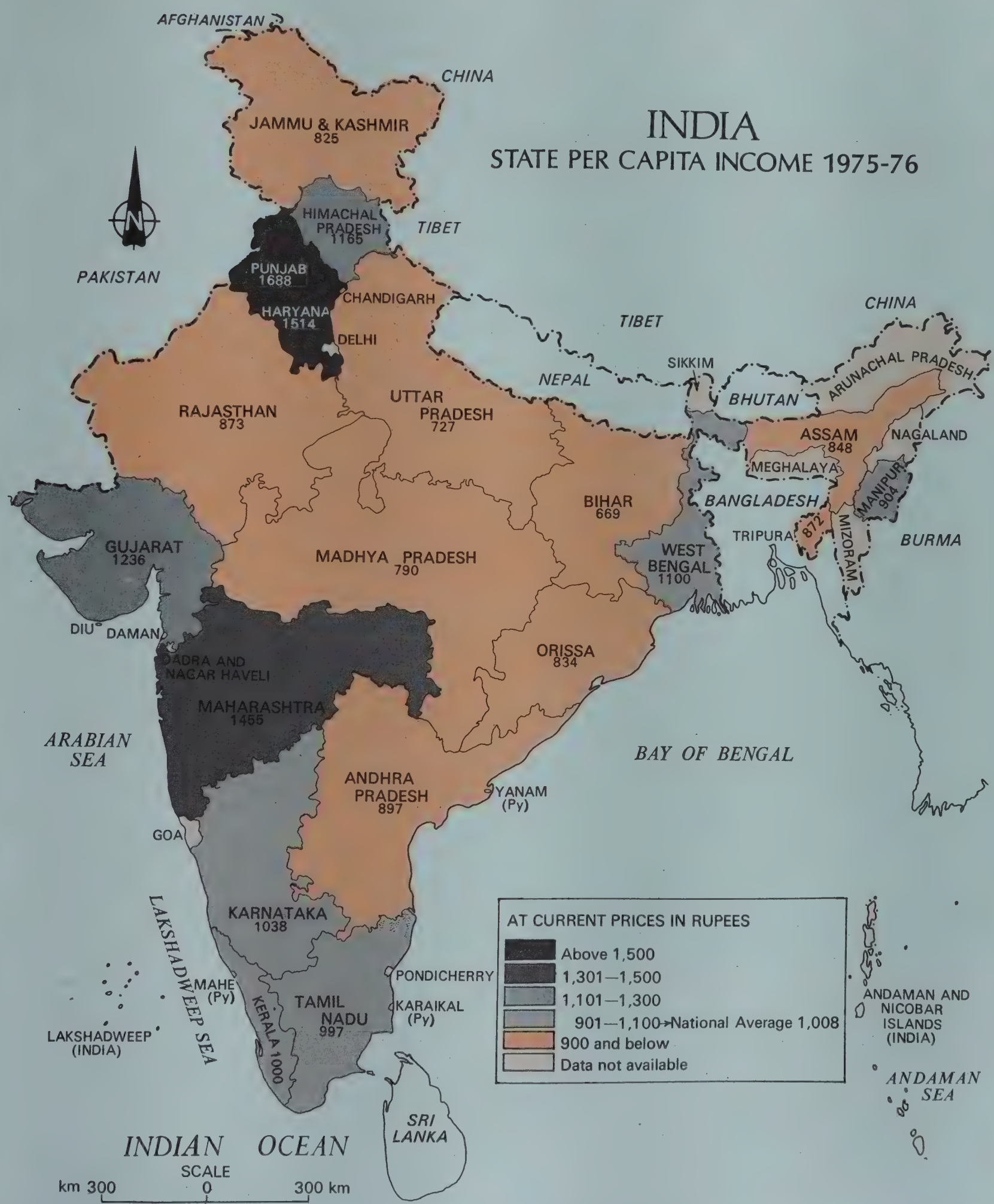
NET NATIONAL PRODUCT (AT 1970-71 PRICES)



Source : Ministry of Finance, Economic Division
Government of India.

INDIA

STATE PER CAPITA INCOME 1975-76





POVERTY

Estimates of persons below poverty line vary due to variations in sources, definition and methodology of computing the poverty line.

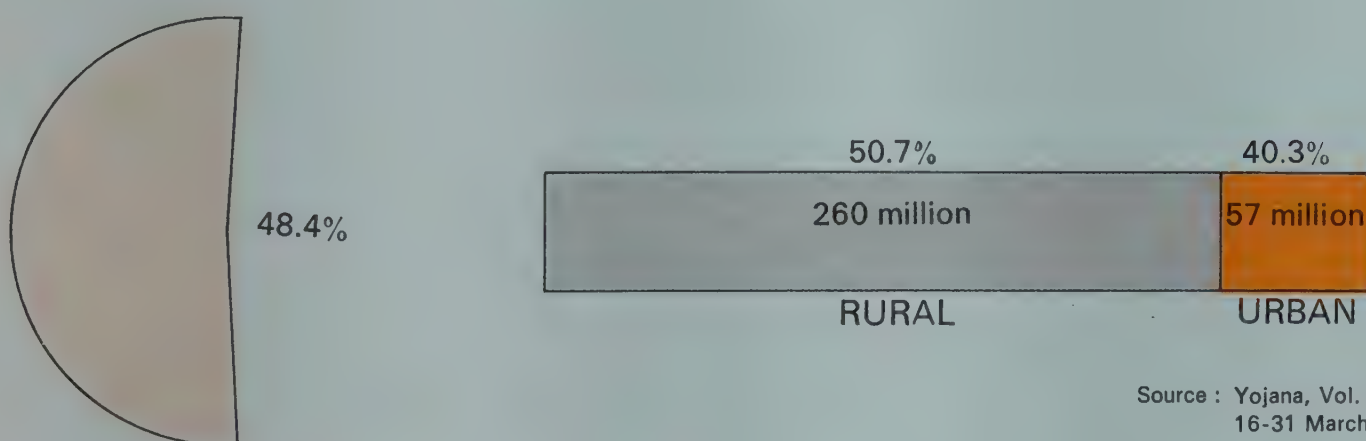
The draft Sixth Plan assumed a poverty line based on consumption expenditure of Rs. 65 per capita per month in rural areas and Rs. 75 in urban areas at 1977-78 prices. These levels have been derived on the basis of recommended daily minimum of 2,400 calories of food intake. On this basis, 306 million people or 49 per cent of the total population in the country were living below the poverty line in 1977-78.

According to the recent Sixth Five Year Plan estimates (assuming the distribution of consumption of 1977-78 remaining unchanged), the poverty percentage will be reduced from 48.4 per cent in 1979-80 to 38.9 per cent in 1984-85.

About 316 million people or 48.4 per cent of the total population in the country were living below the poverty line in 1979-80, (259 million or 50.7 per cent in rural areas and 57 million or 40.3 per cent in urban areas).

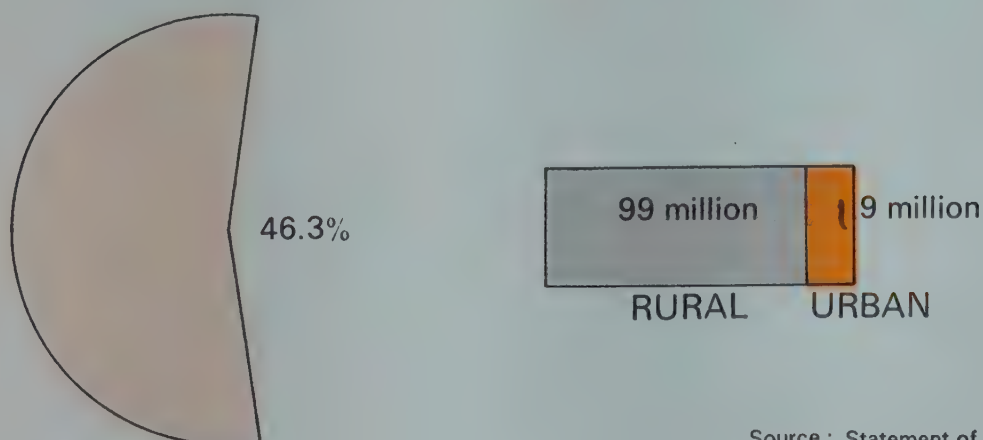
Children below poverty line are estimated at 118 million, 99 million in rural areas and 19 million in urban areas. It is estimated that 55 per cent children in rural areas and 45 per cent in urban areas fall below the subsistence level.

POPULATION BELOW POVERTY LINE



Source : Yojana, Vol. XXV/5
16-31 March, 1981.

CHILDREN BELOW POVERTY LINE



Source : Statement of Planning Minister
in Lok Sabha, 26 Feb. 1981



CHILDREN IN THE WORK FORCE

Poverty is a major cause for child labour; children's income is essential to the survival of the family and/or themselves. The bulk of the child labour force is in the age group 10 – 14 years with nearly 30 per cent boys and 20 per cent girls reported to be working. Only two or three per cent of 5 – 9 year olds of both sexes are workers.

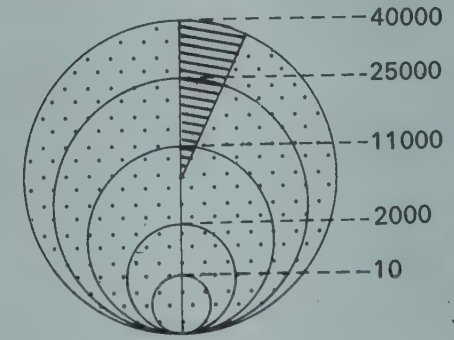
In 1971, there were 10.7 million child workers (below 15 years), constituting 6 per cent of the total labour force in the country. States and union territories with proportions higher than the national average are Andhra Pradesh, Karnataka, Madhya Pradesh, Meghalaya, Nagaland, Orissa, Rajasthan, Arunachal Pradesh and Dadra and Nagar Haveli.

INDIA

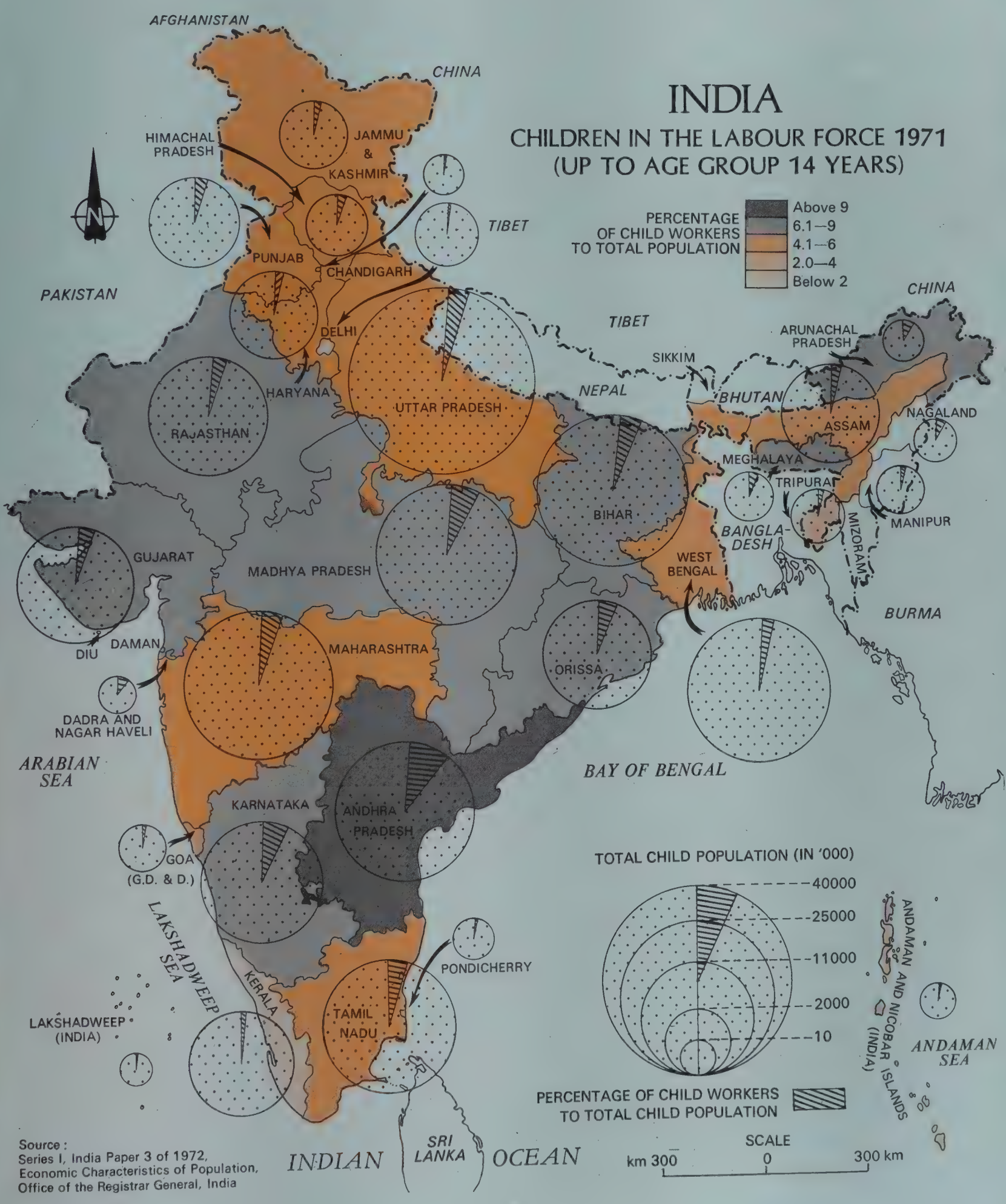
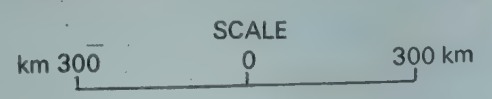
CHILDREN IN THE LABOUR FORCE 1971 (UP TO AGE GROUP 14 YEARS)



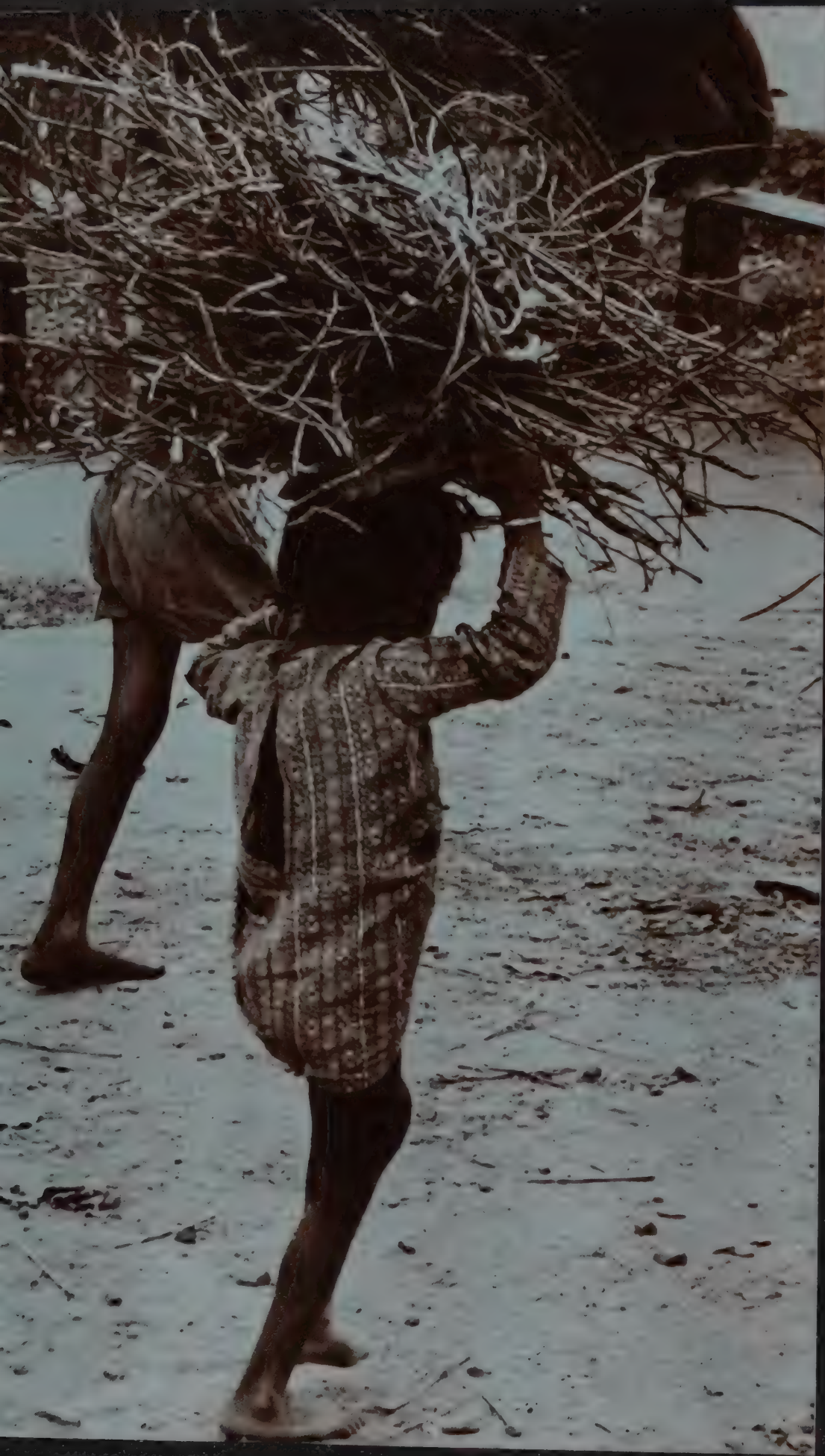
TOTAL CHILD POPULATION (IN '000)



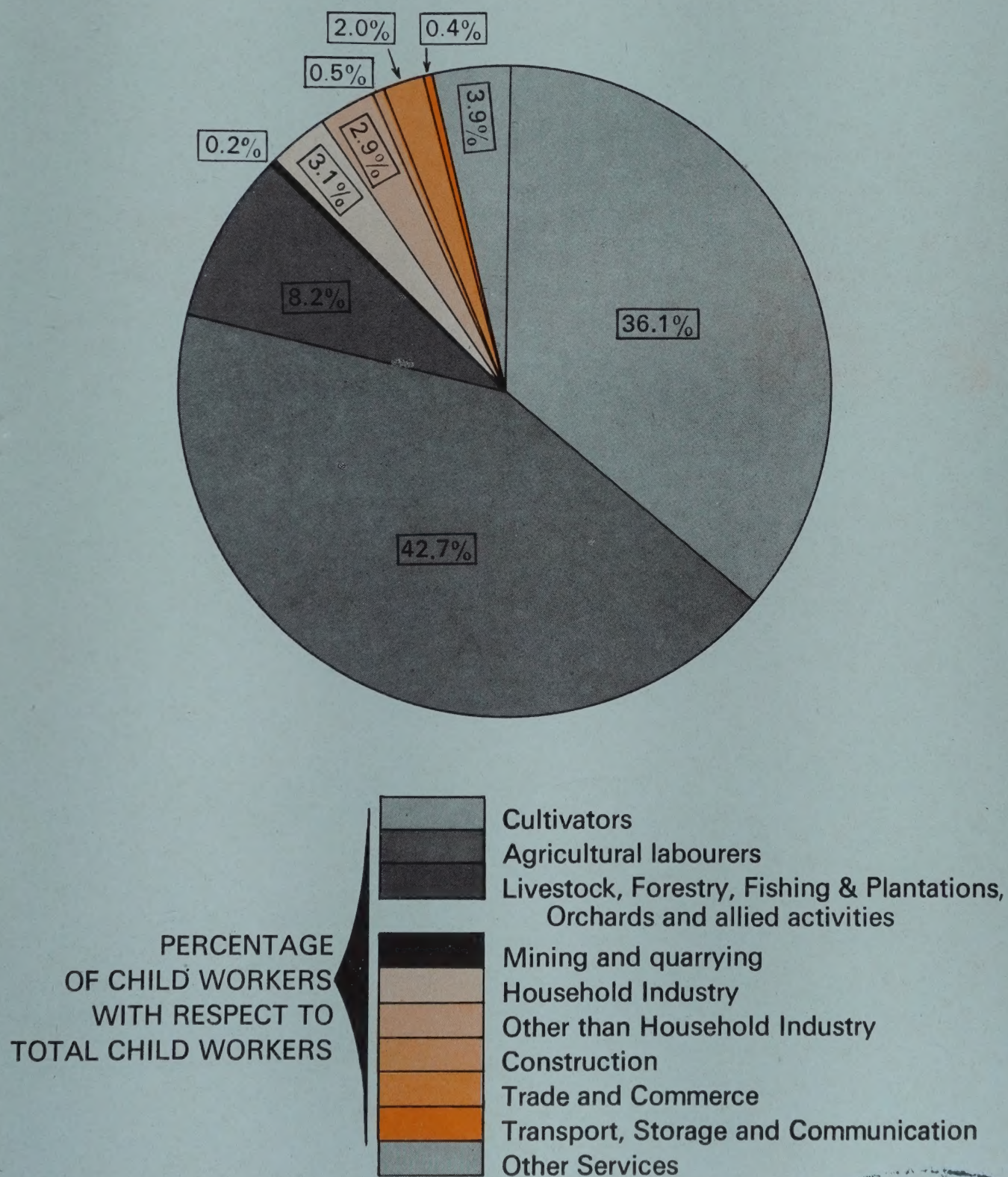
PERCENTAGE OF CHILD WORKERS TO TOTAL CHILD POPULATION



Source :
Series I, India Paper 3 of 1972,
Economic Characteristics of Population,
Office of the Registrar General, India

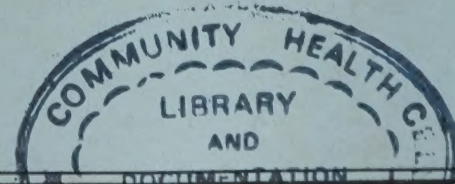


CHILD WORKERS BY NATURE OF ACTIVITY 1971



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Design by Satish Sud Graphics,
Printed by Maya Enterprises, Delhi
Maps and diagrams by Cartographic Design, New Delhi

